

# The Multiple Values of Wilderness

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Forest Service Research and the University of Georgia

[www.srs.fs.fed.us/trends](http://www.srs.fs.fed.us/trends)



**Forest Service Research and Development**

# Birding

## BUSINESS



FEBRUARY 2006

**We study  
public attitudes  
and use of the  
out of doors**

### Who's Birding?

**Ken Cordell Counts  
America's Birders**

Page 16

**Store Survives  
Katrina**

Page 6

**House Finch or  
Purple Finch?**

Page 2

**Ratner Trims  
Health Care  
Costs**

Page 58

PSRST STD  
U.S. POSTAGE  
PAID  
Manchester, NH  
Permit No. 1926

[www.srs.fs.fed.us/trends](http://www.srs.fs.fed.us/trends)



# Our Mission

Provide up-to-date information on trends in public demands, values, perceptions, and benefits of natural lands and describe how demographic shifts will affect those demands.

## Primary Methods of Research

- Surveys of the public and on-site visitors, especially studies of recreation that occurs on public lands
- Broad-scale (region-wide and countrywide) assessments of societal and natural resources change
- Studying the economic and resource impacts of nature-based recreation and tourism.



# **This Presentation is about Wilderness**

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- 1. Some principles important for Wilderness stewardship**
- 2. The emergence of public lands and the changing world around them**
- 3. A big picture description of the NWPS**
- 4. Public land and Wilderness values**
- 5. Social Values and Group Differences**
- 6. Economic Values**
- 7. Ecological and Intrinsic Values**



# SOME PRINCIPLES IMPORTANT to WILDERNESS MANAGEMENT

- The National Wilderness System is first and foremost a national resource for the benefit of all, human society and ecosystems alike
- Social, economic, political, and environmental conditions and trends define a changing context within which Wilderness must be managed. It is important to know the trends
- Wilderness management goals must be long term and consider all levels of interest
- Fragmented (compartmentalized) decision making is easier, but not always better
- Good planning is forward looking, based on what could and should be, not necessarily what is or has been



# TOPICS

1. Some principles important for Wilderness stewardship
2. The emergence of U. S. public lands and the changing world around them
3. Emergence of the NWPS
4. Public land and Wilderness values
5. Social Values and Group Differences
6. Economic Values
7. Ecological and Intrinsic Values

Web Site

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# The Beginnings of Land Transformation



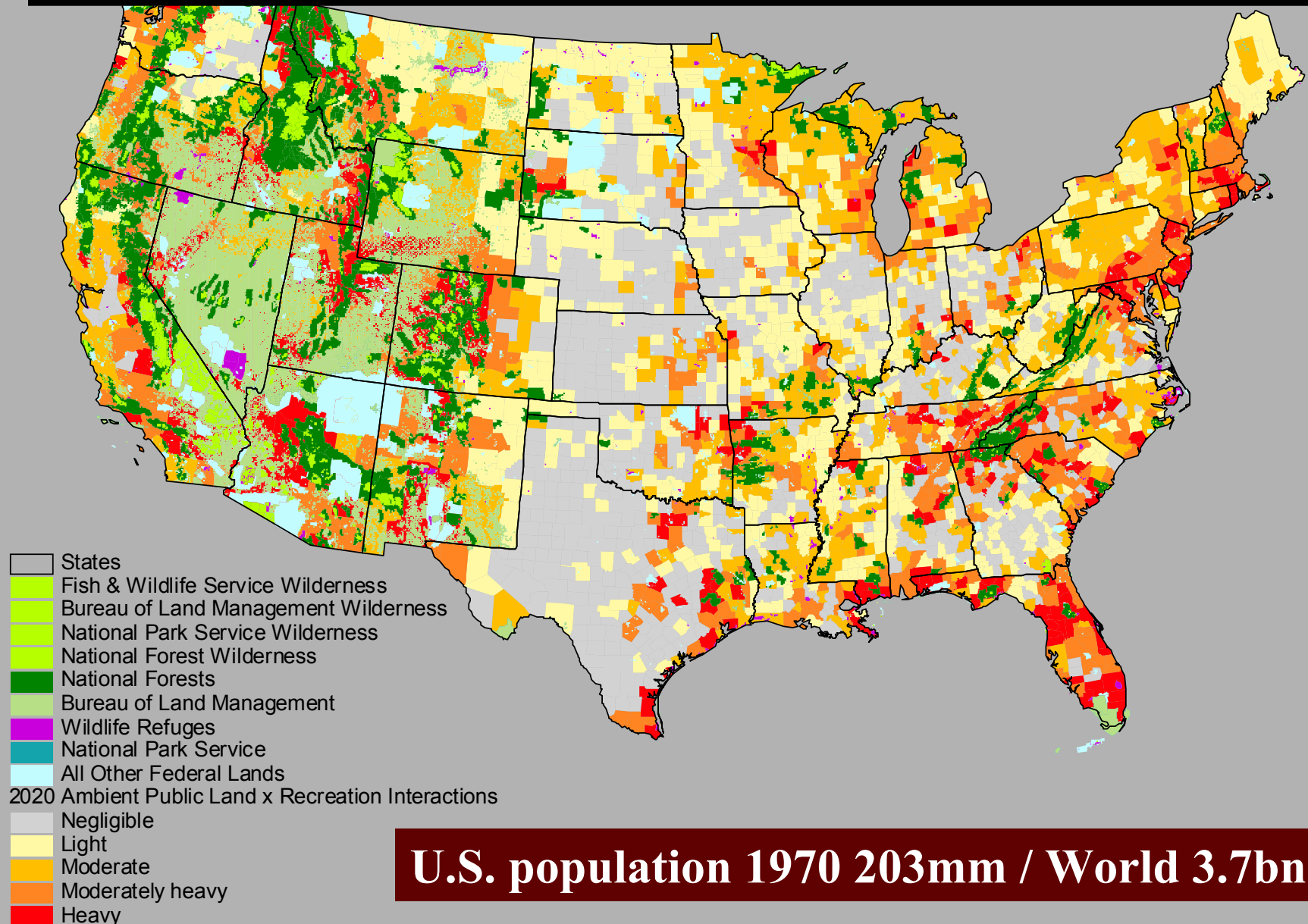


**Hundreds of thousands moving from east to west changed the natural landscape**



<http://www.nara.gov/nara/nn/nns/west134.jpg>

**But as population was added and the U.S. matured,  
a rich system of public lands was also added**



**U.S. population 1970 203mm / World 3.7bn**



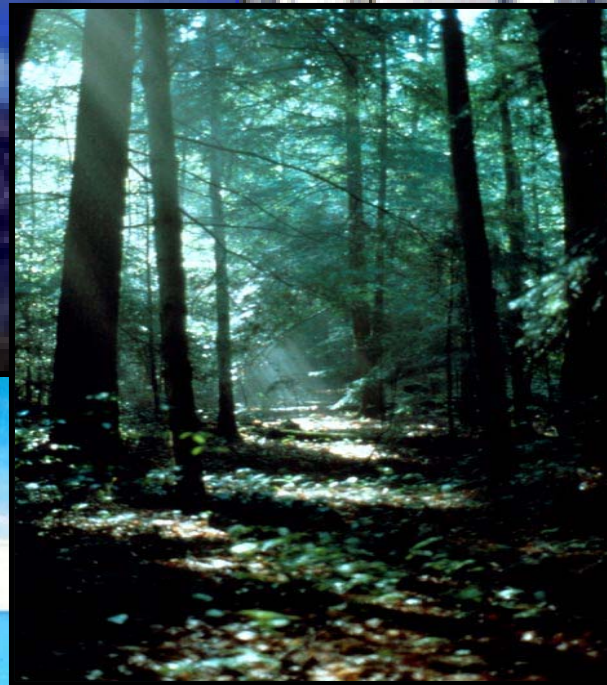
## The Federal Lands



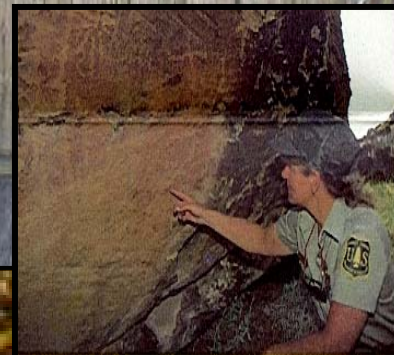
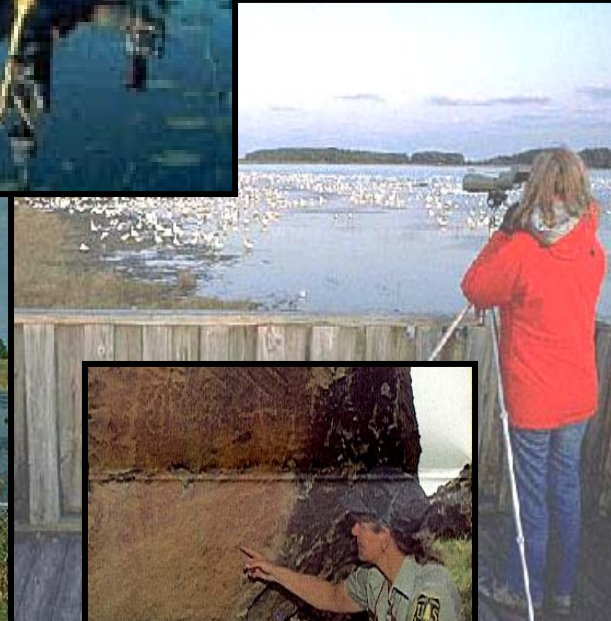
**Forests, Rivers and Minerals for  
Raw Materials and Energy**



# Protection of Irreplaceable Wild Lands

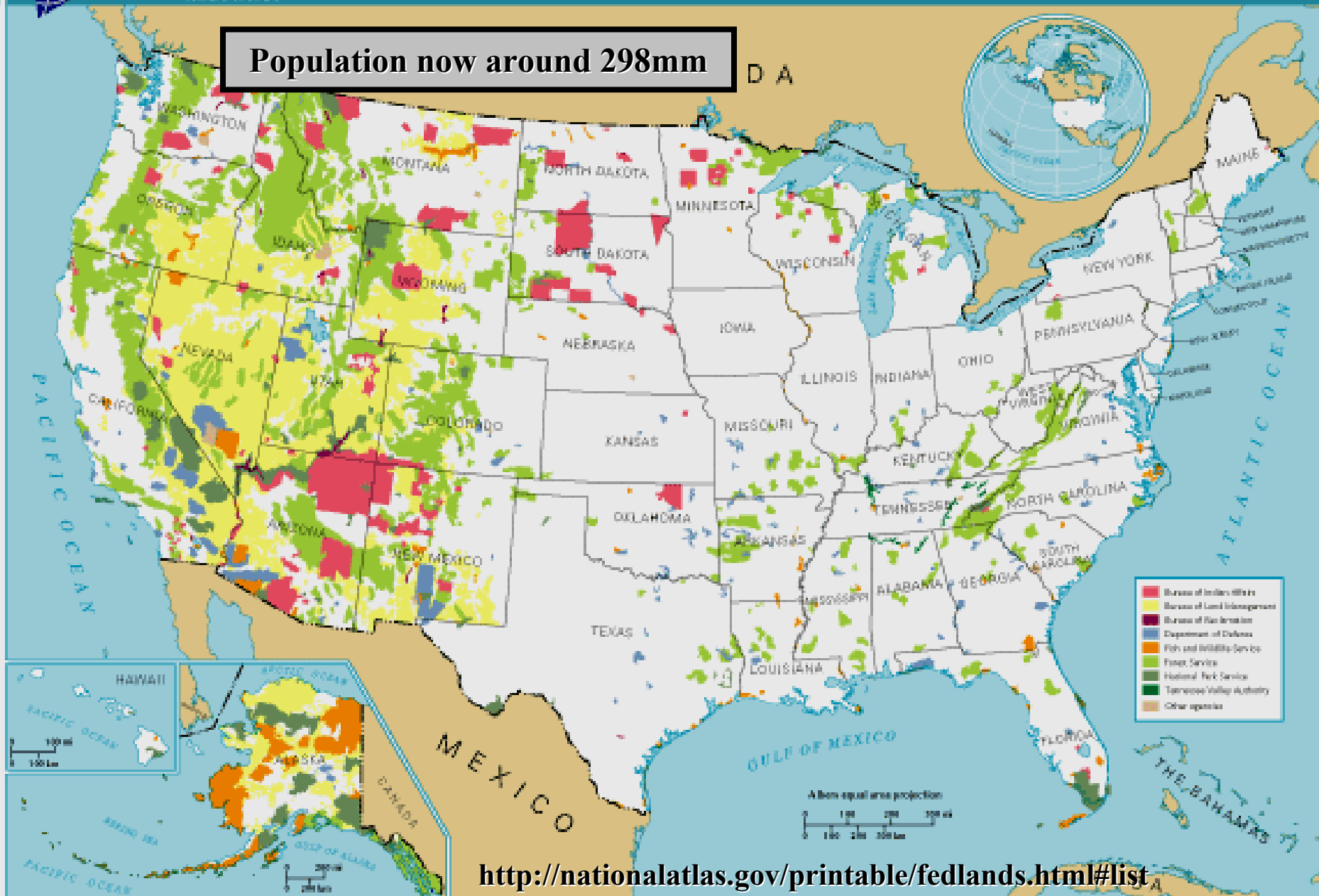


# Natural Settings for Fun, Learning and Renewal





Population now around 298mm



<http://nationalatlas.gov/printable/fedlands.html#list>



# THIS PRESENTATION

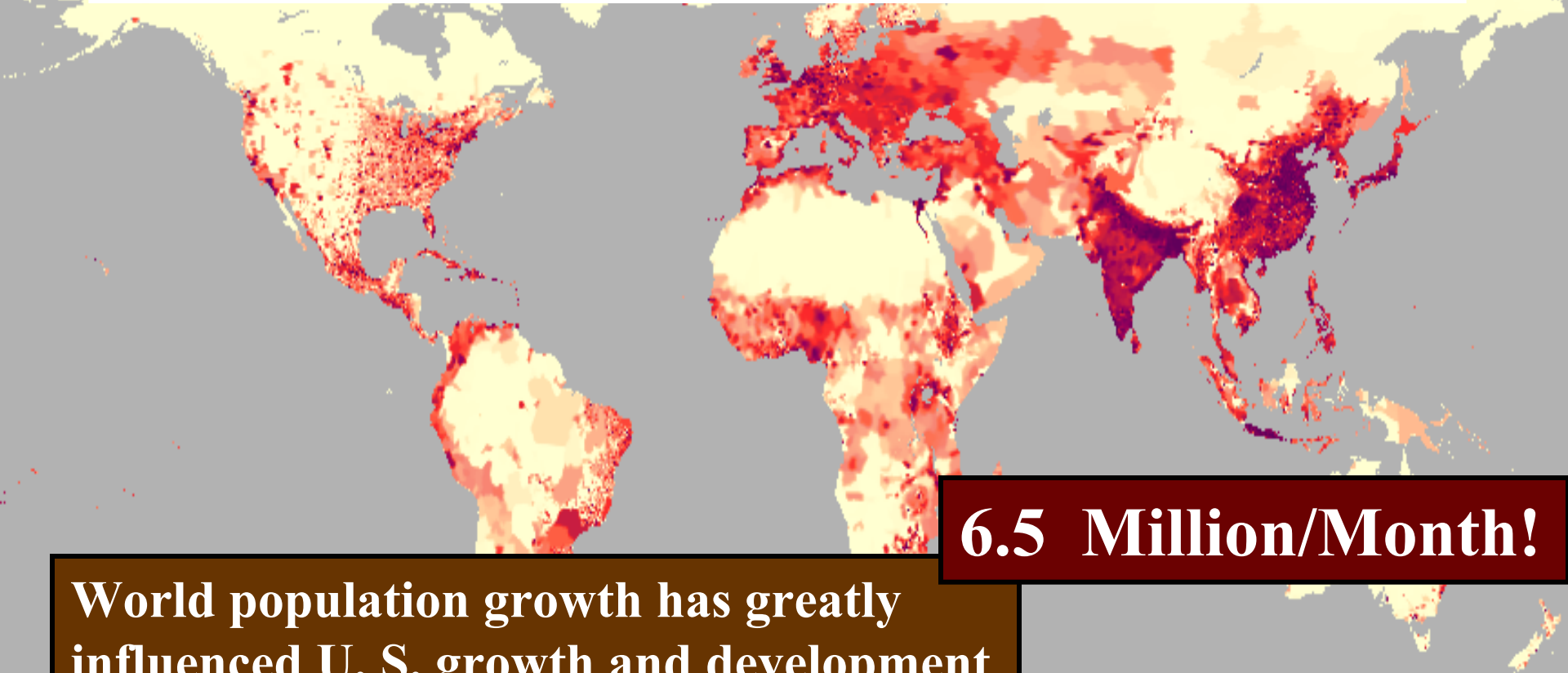


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**Web Site**  
[www/srs.fs.fed.us/trends](http://www/srs.fs.fed.us/trends)

Sharp Top Mountain, VA, USA

# The modern-day world context of public land stewardship



**6.5 Million/Month!**

**World population growth has greatly influenced U. S. growth and development**

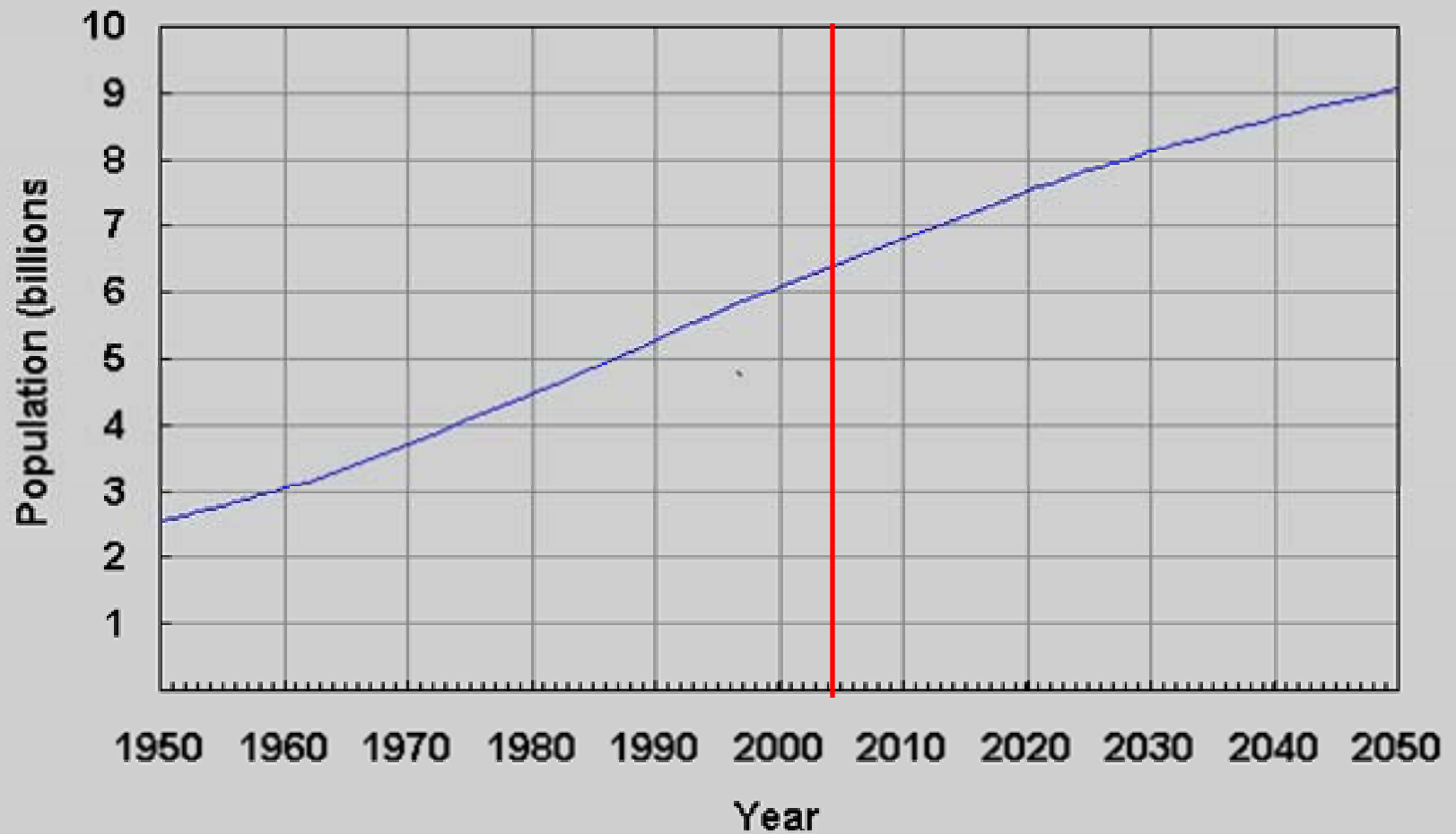
**Population densities (per square km).**



**2006**

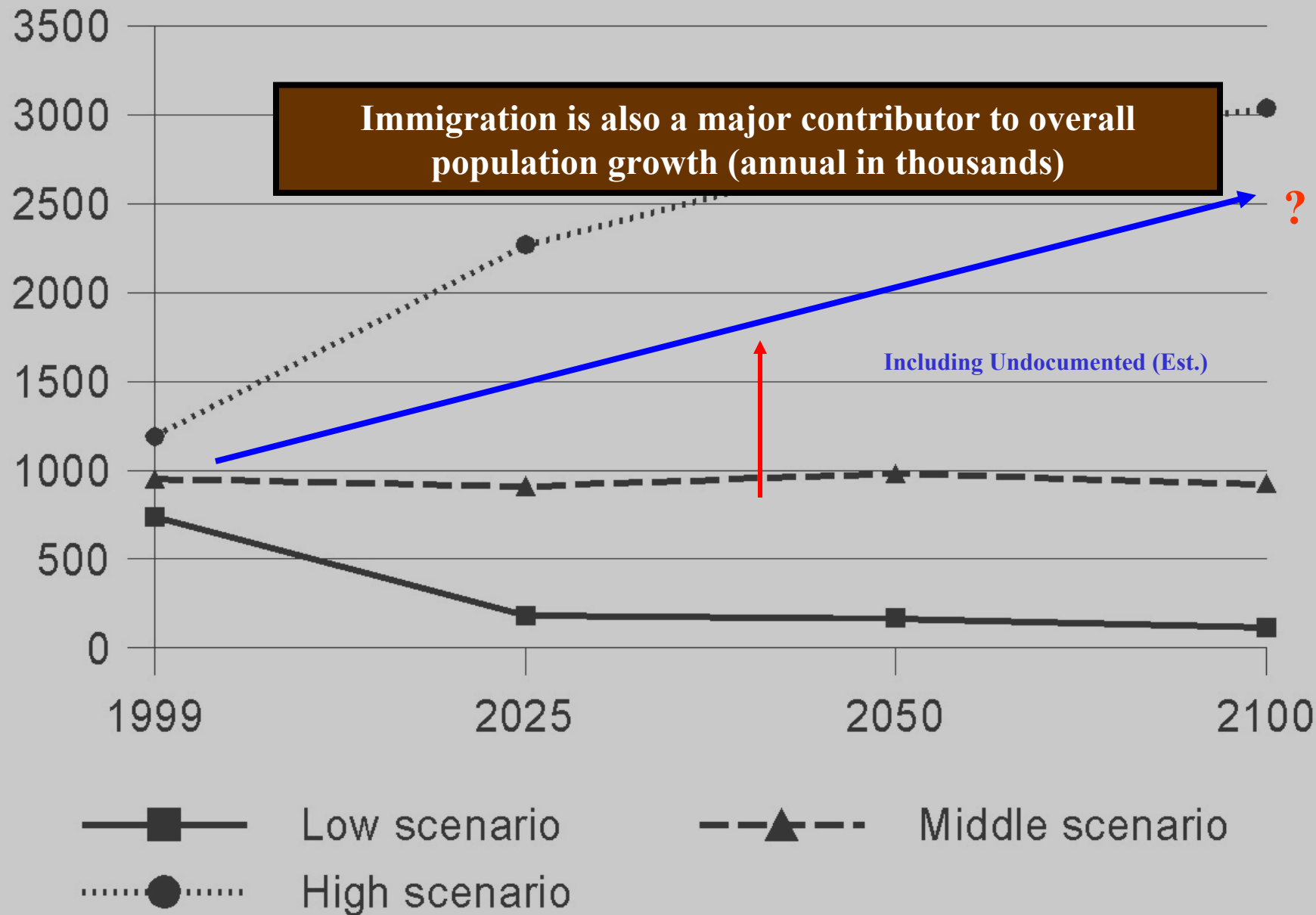
<http://sedac.ciesin.columbia.edu/gpw/>

## World Population: 1950-2050



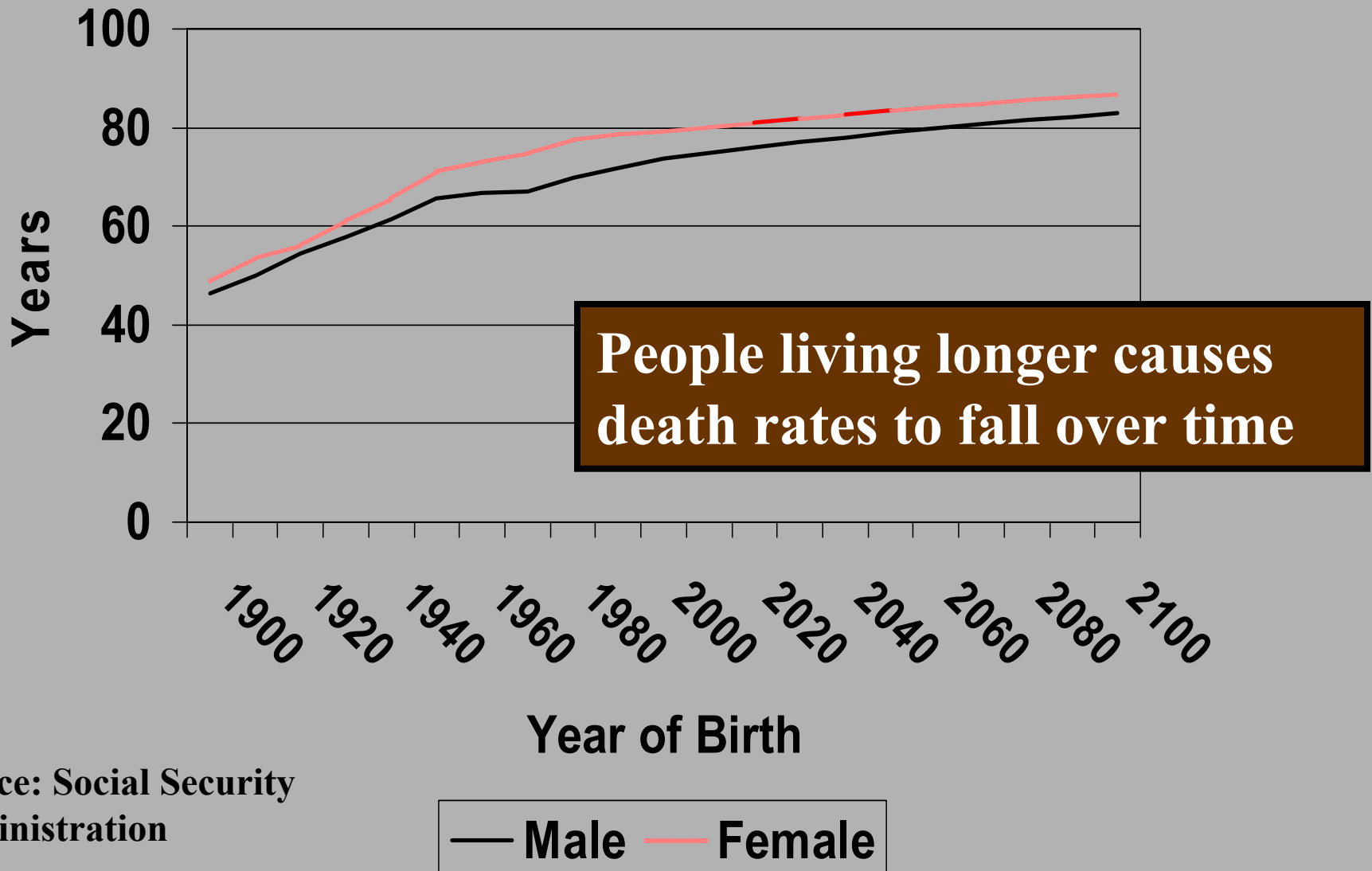
Source: U.S. Census Bureau, International Data Base, April 2004 version.



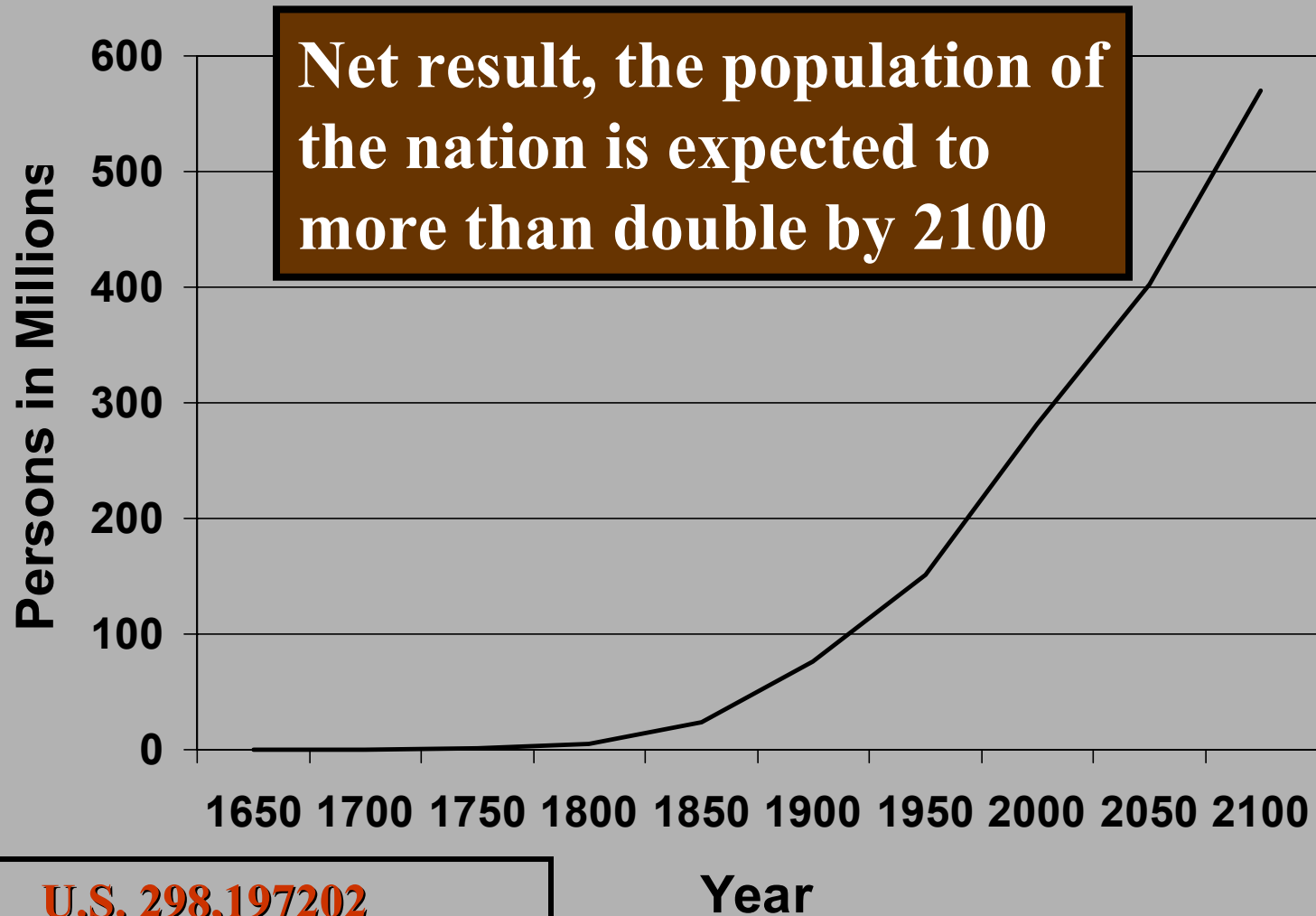


Projected net migration to the US, 1999-2100, under alternative low, middle, and high scenarios.

# Life Expectancy



# Historical and Projected Population in the U.S.



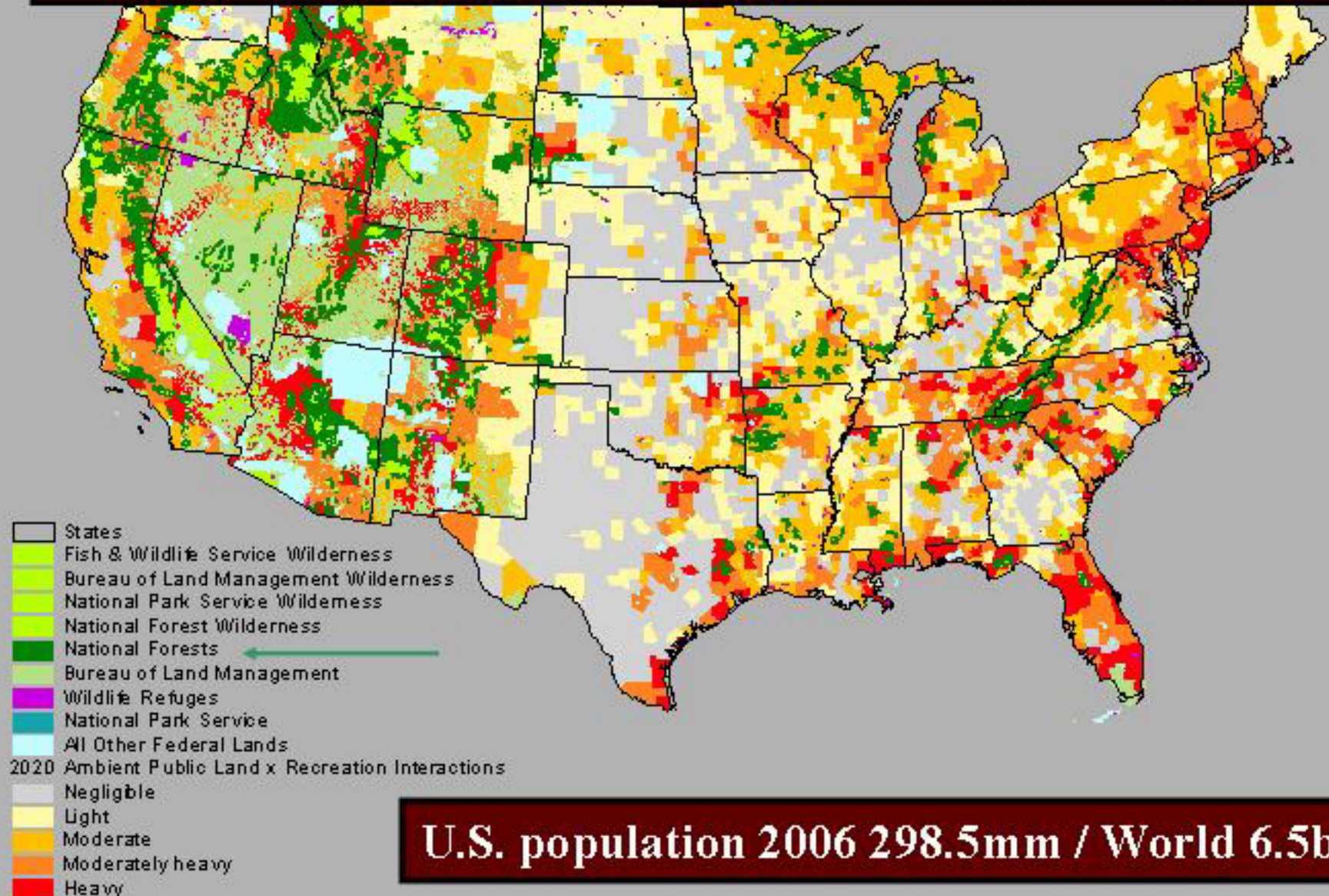
**U.S. 298,197,202**

**World 6,500,323,176**

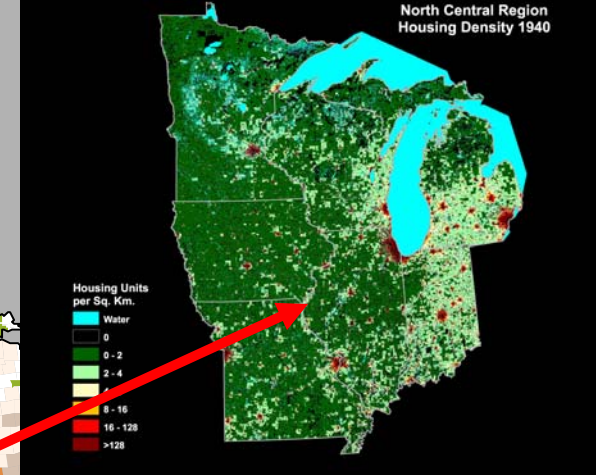
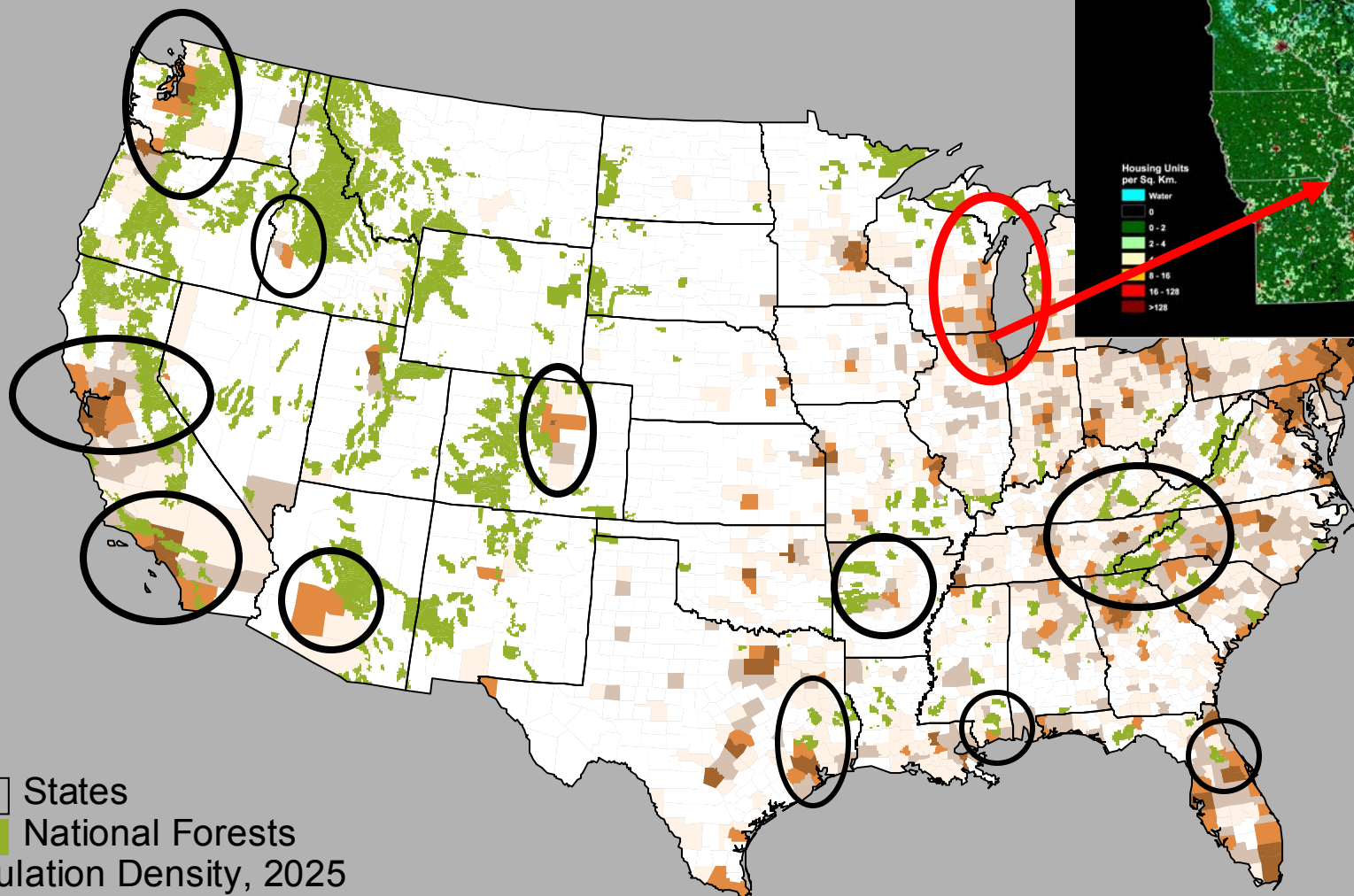
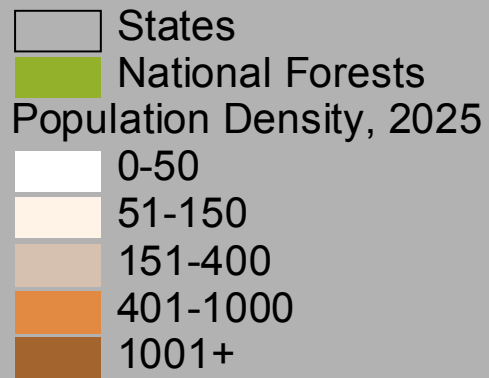
**14:21 GMT (EST+5) Feb. 27, 2006**



**As population grows it spreads across the landscape, private land is developed and converted from natural ecosystems. Public natural lands become more unique and valuable**



**U.S. population 2006 298.5mm / World 6.5bn**

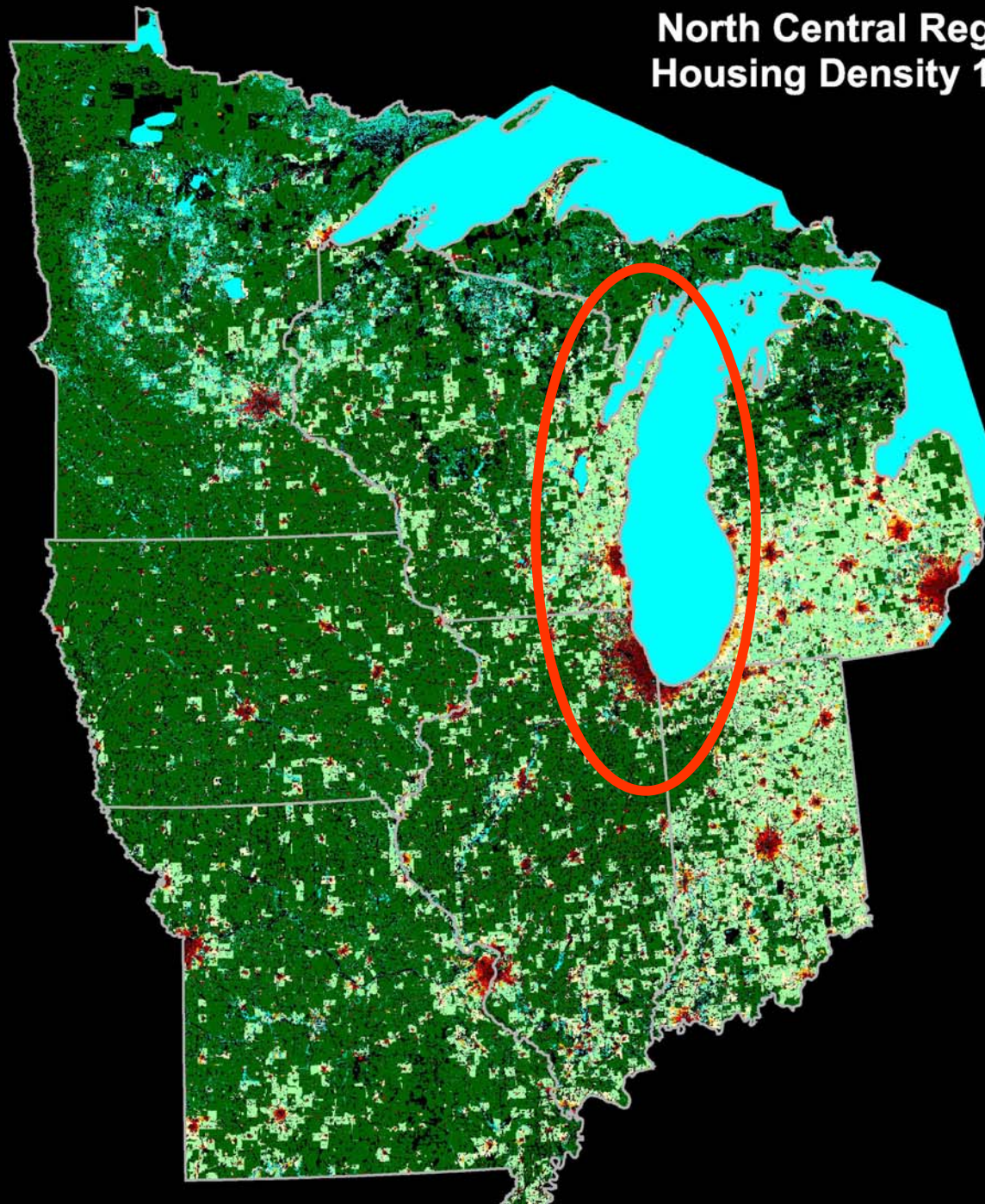


**National Forests are in the Cross Hairs  
of Growth and land development, 2025**



# North Central Region Housing Density 1940

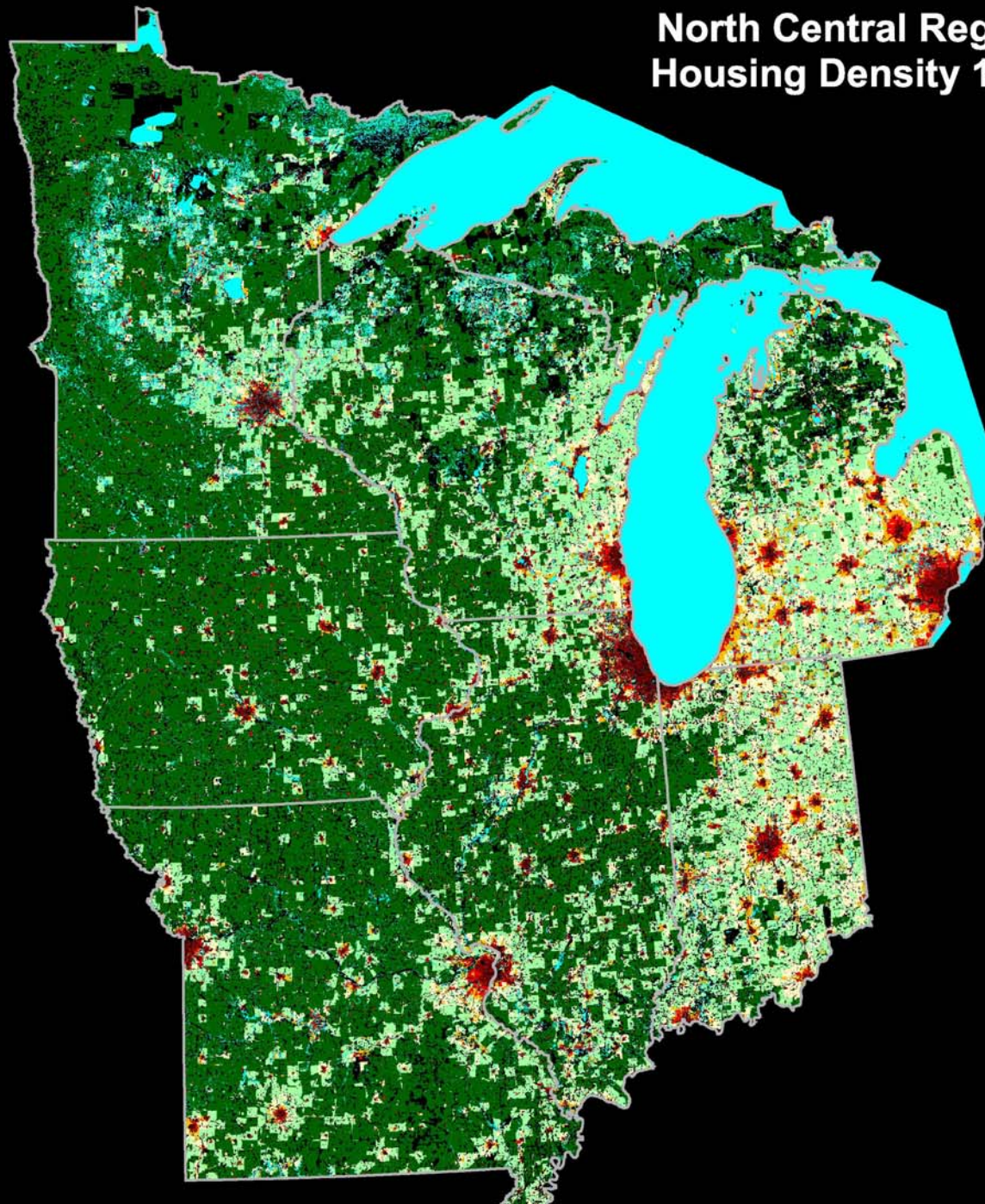
Housing Units  
per Sq. Km.





# North Central Region Housing Density 1960

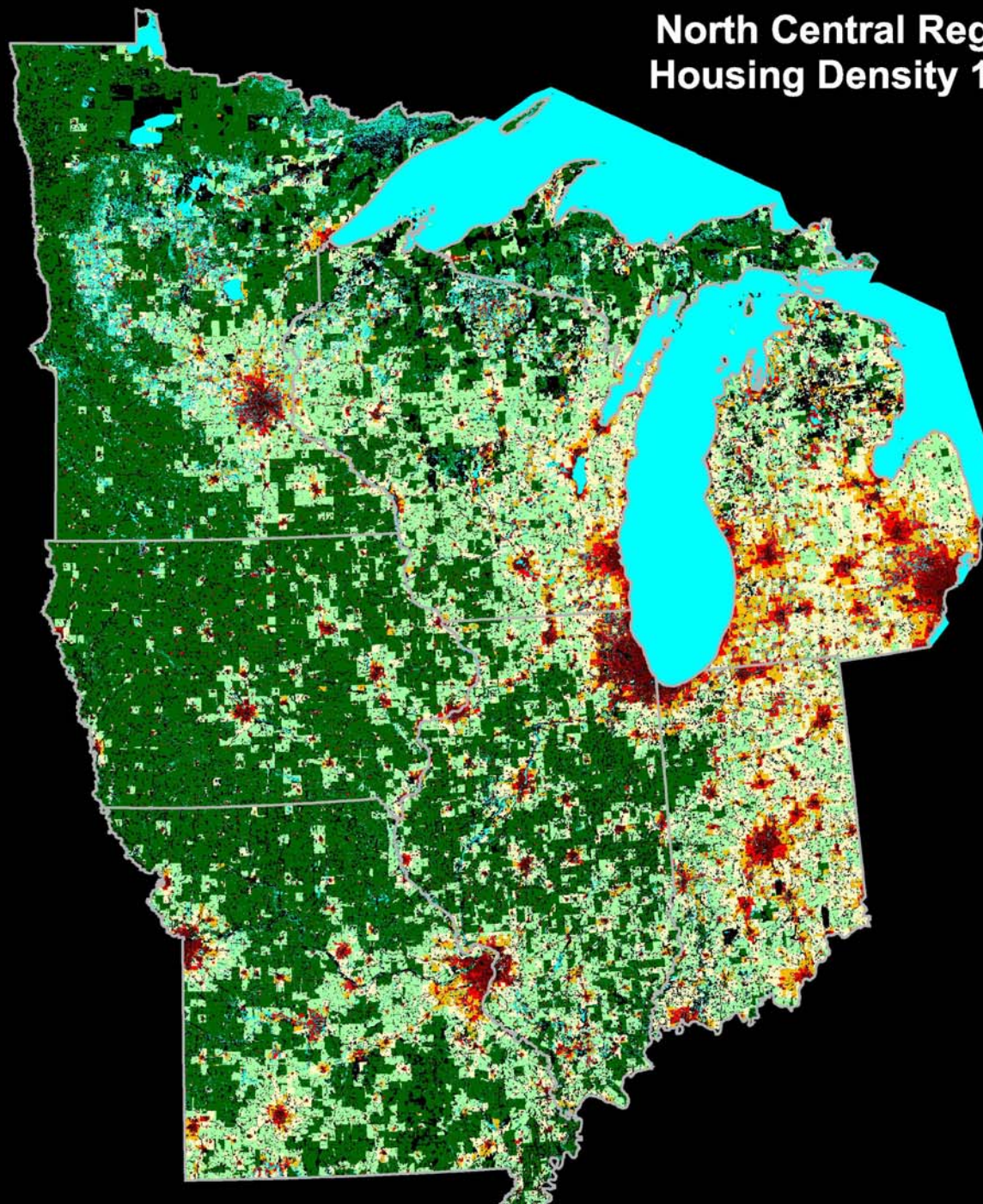
Housing Units  
per Sq. Km.





# North Central Region Housing Density 1980

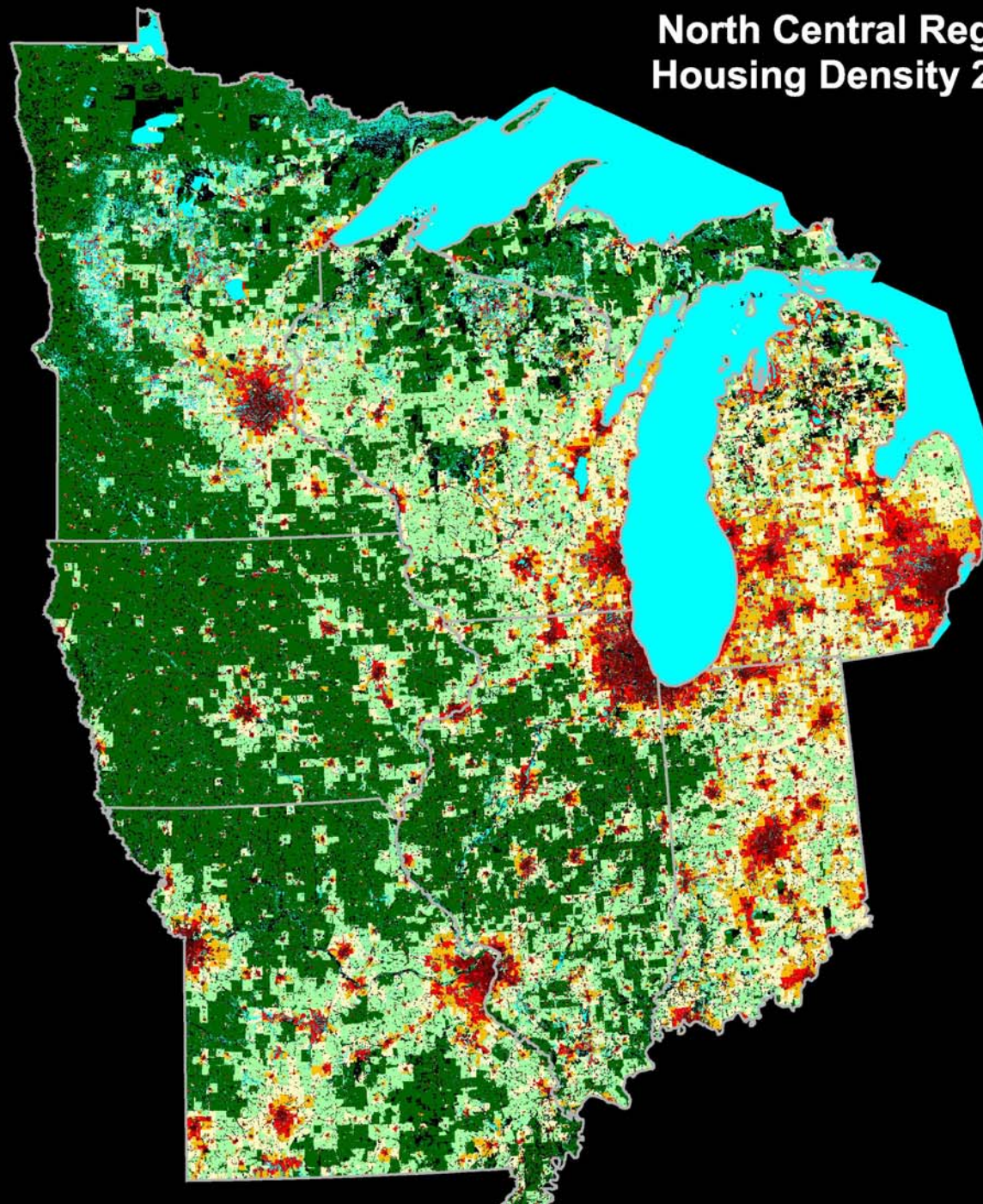
Housing Units  
per Sq. Km.

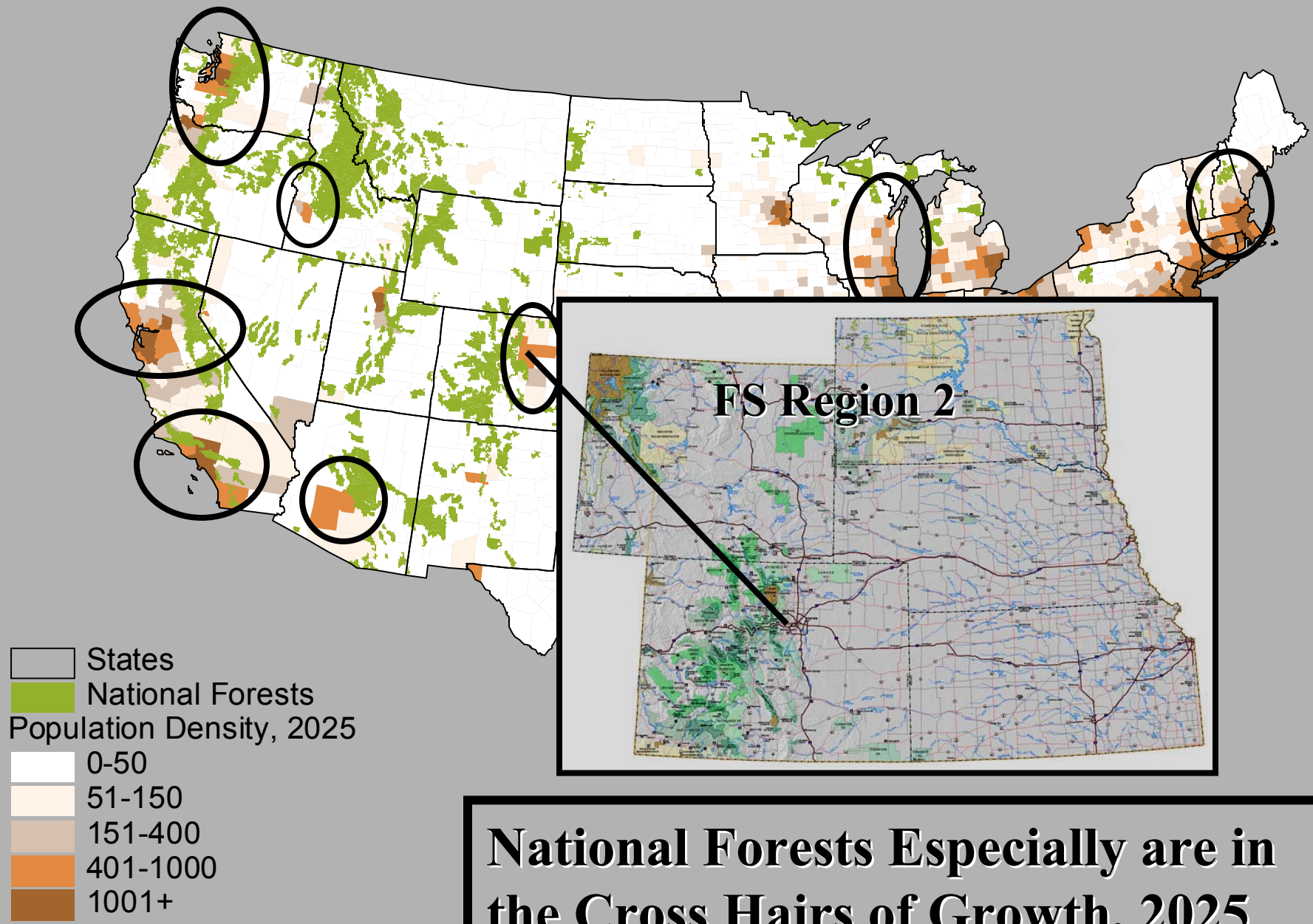




# North Central Region Housing Density 2000

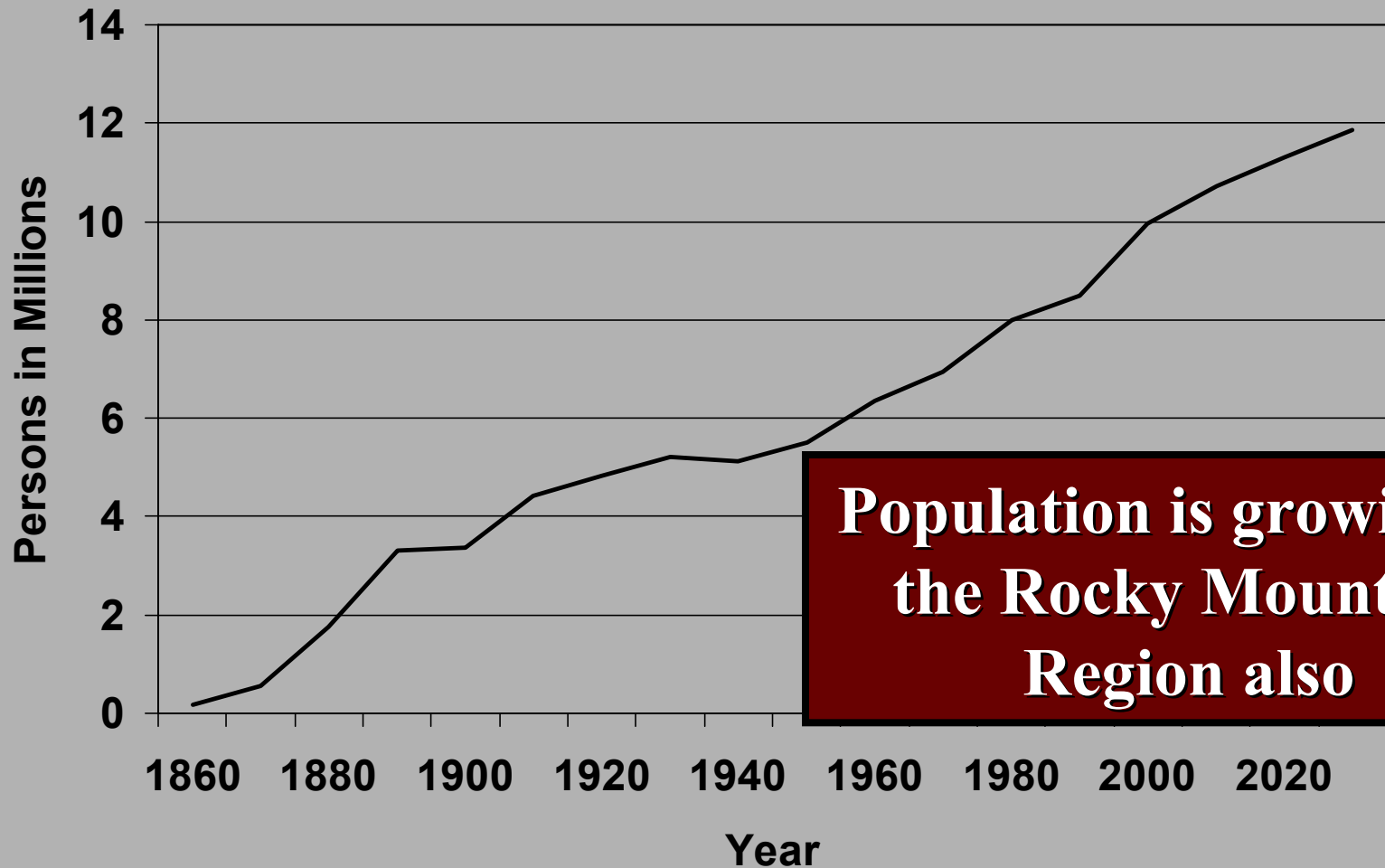
Housing Units  
per Sq. Km.





# Historical and Projected Population in **Region 2**

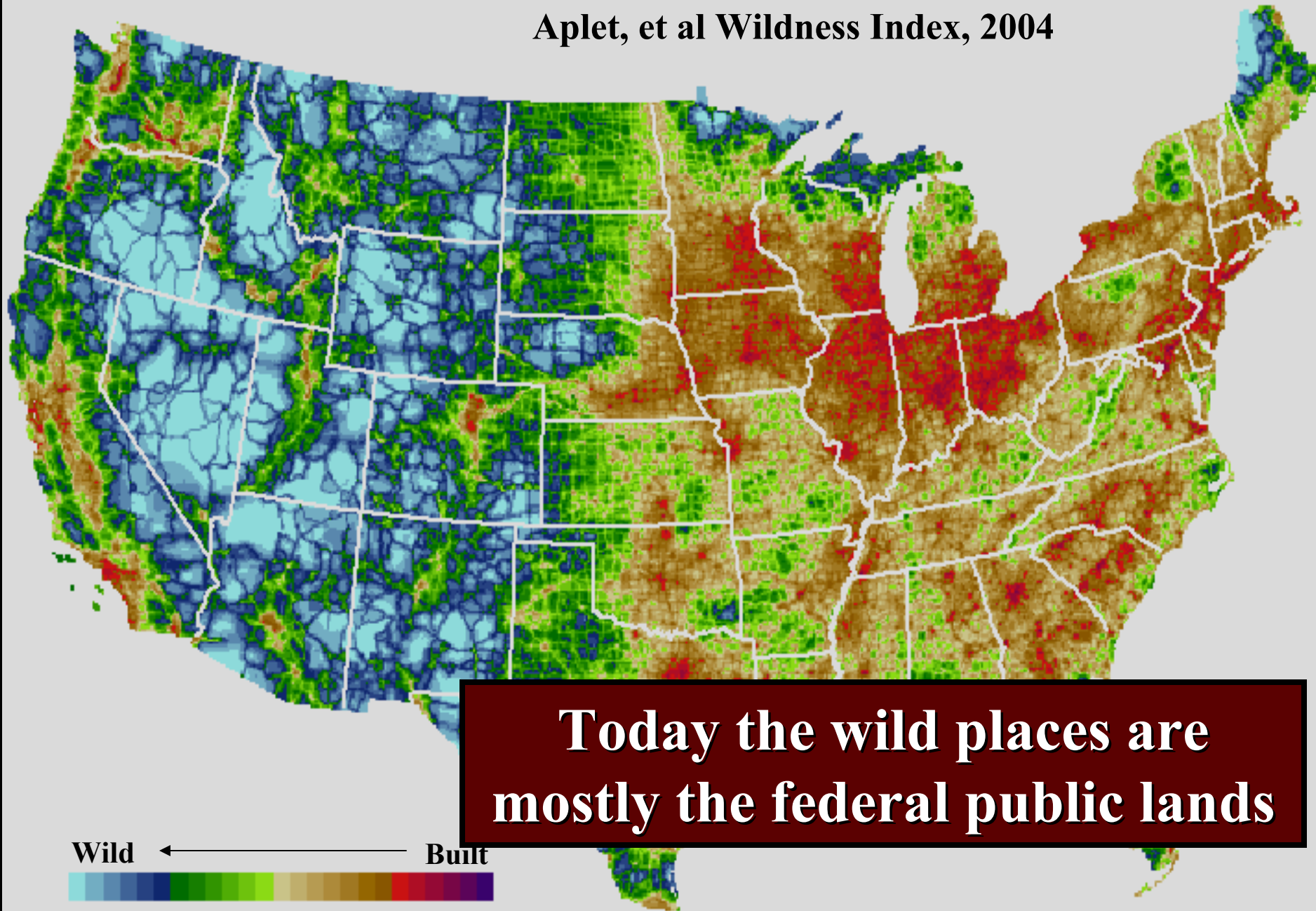
(Colorado, Kansas, Nebraska, South Dakota, & Wyoming)



**Population is growing in  
the Rocky Mountain  
Region also**



Aplet, et al Wildness Index, 2004



# ABOUT THIS PRESENTATION



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5. Social Values and Group Differences
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[www/srs.fs.fed.us/trends](http://www/srs.fs.fed.us/trends)

7. Ecological and Intrinsic Values

Sharp Top Mountain, Va, USA



# **The Multiple Values of Wilderness**

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**Venture Publishing**  
**About our National  
Wilderness System**



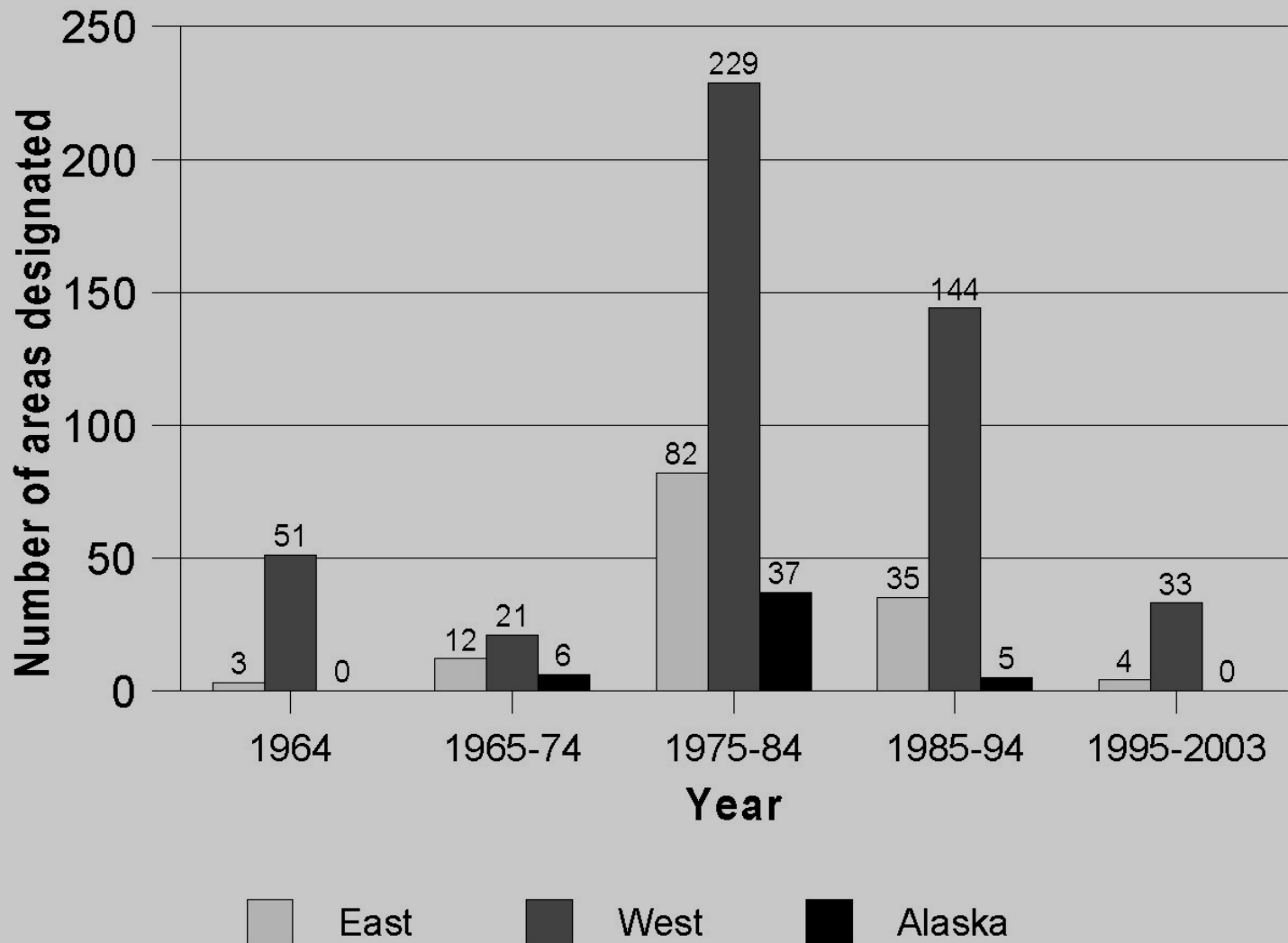
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**H. Ken Cordell  
John C. Bergstrom  
J. M. Bowker**

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# Number of Wilderness areas designated in the East, West, and Alaska between 1964 and 2003



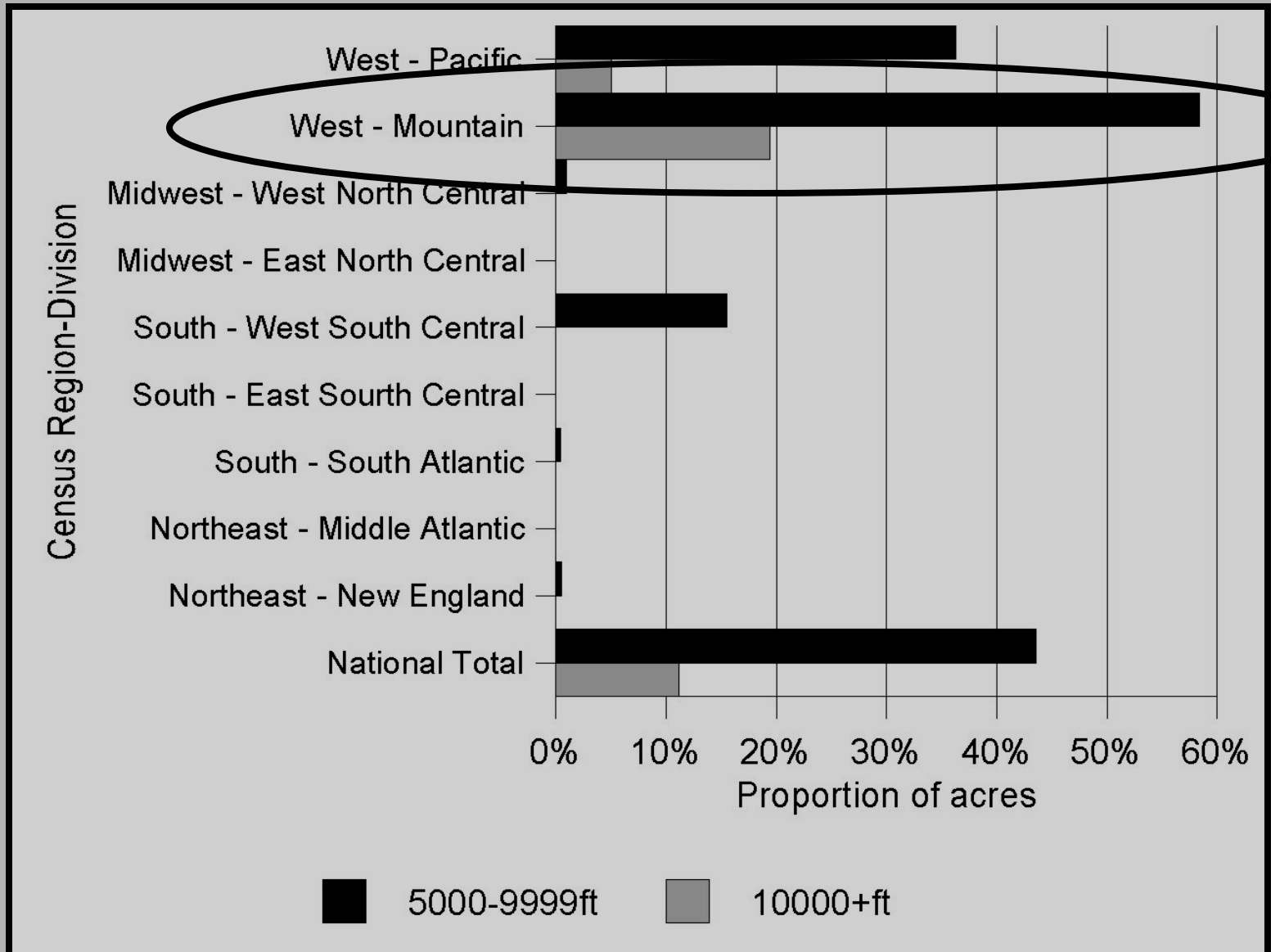
## Number of Wilderness areas and acres in the 10 states having the most Wilderness

| State                 | Number of Areas | Acres             | Percentage of National Total Wilderness Acres |
|-----------------------|-----------------|-------------------|---|
| Alaska                | 48              | 58,182,216        | 58.70   |
| California            | 130             | 13,975,535        | 14.10   |
| Arizona               | 90              | 4,518,442         | 4.56  |
| Washington            | 30              | 4,324,182         | 4.36  |
| Idaho                 | 7               | 4,015,061         | 4.05  |
| Montana               | 15              | 3,442,416         | 3.47  |
| Colorado              | 40              | 3,271,685         | 3.20  |
| Wyoming               | 15              | 3,111,132         | 3.14  |
| Oregon                | 40              | 2,258,238         | 2.28  |
| Nevada                | 42              | 2,123,343         | 2.14  |
| <b>10-State Total</b> | <b>457</b>      | <b>99,222,250</b> | <b>100.00</b>                                 |

**Wilderness is important to the landscapes of many states**



# Percentage of total Wilderness acres at elevations above 5,000 feet by census division and nationally



# **Number of people living within 25, 50, 100, 200, and 400 miles of Wilderness, 2000 Census**

| <b>Distance</b> | <b>Sum of Population</b> | <b>Percent of Population</b> |
|-----------------|--------------------------|------------------------------|
| 25 miles        | 47,495,997               | 16.8                         |
| 50 miles        | 114,497,257              | 40.6                         |
| 100 miles       | 195,745,452              | 69.4                         |
| 200 miles       | 262,151,985              | 93.0                         |
| 400 miles       | 281,918,792              | 100.0                        |



## The National Wilderness Preservation System

This map illustrates the distribution of National Wilderness Preservation System areas across the United States. The land is color-coded to represent different types of federal land management: green for National Forest land, yellow for Bureau of Land Management land, and purple for National Park land. The map shows a high concentration of these areas in the western United States, particularly in California, where there are numerous small, scattered patches. Other significant areas are found in the Pacific Northwest (Washington, Oregon, Idaho), the Rocky Mountain region (Montana, Wyoming, Colorado, Utah, Arizona, New Mexico), and the Sierra Nevada range. Smaller, more isolated areas are scattered throughout the central and eastern United States, including in states like Minnesota, Wisconsin, Michigan, and Florida. An inset map in the top right corner shows the locations of Alaska, Hawaii, and Puerto Rico, indicating that the system also encompasses these territories. The map is overlaid with a grid of latitude and longitude lines.

# **ABOUT THIS PRESENTATION**

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# WHAT DOES THE U.S. PUBLIC AT LARGE VALUE IN OUR PUBLIC LANDS??

- Provide permits to ranchers for **grazing of livestock** such as cattle and sheep
- Maintain public lands for **future generations** to use and enjoy
- Provide access, facilities and services for **outdoor recreation**
- Provide **quiet, natural places** for personal renewal
- Use and manage public areas in ways that leave them **natural in appearance**
- Emphasize planting/management of trees for **abundant timber** supply
- Provide access to **raw materials** and products for local industries and communities
- Protect streams and other sources of **clean water**
- Protect **rare, unique or endangered** plant and animal species
- Provide roads, accommodations and services to help local **tourism** businesses
- Provide information and **educational services** about natural areas, their management and the natural life in them

# Public Values of National Forests

| Value   | Extremely Important | Important |
|---|---------------------|-----------|
| Protect streams and other sources of clean water                            | 83.5                | 94.9      |
| Maintain NFs for future generations   | 81.3                | 93.5      |
| Provide habitat for wildlife and fish                                       | 70.4                | 89.2      |
| Protect rare plant or animal species  | 68.1                | 86.0      |
| Manage NF areas to leave them natural looking                               | 65.2                | 86.8      |
| Emphasize planting and management for timber                                | 58.5                | 79.1      |
| Provide information and educational services                                | 53.2                | 80.1      |
| Provide quiet, natural places for personal renewal                          | 50.3                | 75.8      |
| Provide access, facilities, and services for recreation                     | 45.4                | 74.5      |
| Provide roads, services, accommodations to support local tourism businesses | 31.6                | 57.0      |
| Provide permits to ranchers for grazing livestock                           | 29.2                | 52.1      |
| Provide raw materials to support local industries                           | 25.9                | 47.1      |

# The Multiple Values of Wilderness, i.e., the NWPS

| Basic Functional Connections | Measurement Accounts or Categories   | Specific Types of Measures or Indicators                        |
|------------------------------|--|---|
| <b>Wilderness Values</b>     | <b>Social</b>  | Psychological<br>Sociological<br>Anthropological                |
|                              | <b>Economic</b>  | Active Use Value<br>Passive Use Value<br>Economic Impacts       |
|                              | <b>Ecologic</b>  | Human Life Support Value<br>Animal and Plant Life Support Value |
|                              | <b>Ethical</b>   | Instrumental Value<br>Intrinsic Value                           |
| <b>Wilderness Services</b>   | Animal and Plant Habitat; Carbon Sequestration; Subsistence Living; Cultural Preservation; Historic Preservation; Scientific Discovery; Educational Development; Personal Physical Health and Growth; Personal Emotional Health and Growth; Personal Spiritual Health and Growth; Community Health and Quality of Life |   |
| <b>Wilderness Functions</b>  | Preservation of Natural and Wild Places; Recreational and Experiential Setting; Ecosystem and Biodiversity Preserve  |   |
| <b>Wilderness Attributes</b> | Geographic; Geologic; Hydrologic; Atmospheric; Biologic; Naturalness; Wildness; Constructed  |   |



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5. **Social Values** and Demographic Differences
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# The Multiple Values of Wilderness, i.e., the NWPS

| Basic Functional Connections | Measurement Accounts or Categories   | Specific Types of Measures or Indicators                        |
|------------------------------|--|---|
| <b>Wilderness Values</b>     | <b>Social</b>  | Psychological<br>Sociological<br>Anthropological                |
|                              | <b>Economic</b>  | Active Use Value<br>Passive Use Value<br>Economic Impacts       |
|                              | <b>Ecologic</b>  | Human Life Support Value<br>Animal and Plant Life Support Value |
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# Public Views on Wilderness

- Nationally about 1/2 of American's 16+ report knowing about the NWPS
- Only 4.4% feel we have put too many acres into the NWPS:
  - Not enough 52.6%
  - About right 26.9%
  - Too much 4.4%
  - Not sure 15.4%



# **Local percentages of population indicating support or opposition for designating additional Wilderness in their own state**

| <b>Favor or Oppose</b> | <b>Percent of Respondents</b> |
|------------------------|-------------------------------|
| <b>Favor Total</b>     | <b>70</b>                     |
| Strongly Favor         | 43                            |
| Somewhat Favor         | 27                            |
| <b>Oppose Total</b>    | <b>12</b>                     |
| Somewhat Oppose        | 6                             |
| Strongly Oppose        | 6                             |
| <b>Neither</b>         | <b>12</b>                     |
| <b>Don't Know</b>      | <b>6</b>                      |

# Trends in Public Values of Wilderness

## Very or extremely Important (%)

| <b>Wilderness value</b>         | <b>1994</b> | <b>2002</b> | <b>Change</b> |
|---------------------------------|-------------|-------------|---------------|
| Protecting water quality        | 78.9        | 93.1        | 14.2          |
| Protection of wildlife habitat  | 78.6        | 87.8        | 9.2           |
| Protecting air quality          | 78.0        | 92.3        | 14.3          |
| For future generations          | 76.9        | 87.0        | 10.1          |
| Protection for endangered spp   | 73.7        | 82.7        | 9.0           |
| Preserving ecosystems           | 66.5        | 80.0        | 13.5          |
| Scenic beauty                   | 59.7        | 74.0        | 14.3          |
| Future option to visit          | 59.4        | 75.1        | 15.7          |
| Just knowing it exists          | 56.1        | 74.6        | 18.5          |
| Recreation opportunities        | 48.9        | 64.9        | 16.0          |
| For scientific study            | 46.3        | 57.5        | 11.2          |
| Providing spiritual inspiration | 43.2        | 56.5        | 13.3          |
| Income for tourism industry     | 22.8        | 29.7        | 6.9           |



# Summation

There are three underlying dimensions of Wilderness values that the public considers important. In order, by percentage of Americans saying they are extremely important, they are:

1. Ecological services, especially clean air and water for humans and other species, on and off site
2. Ecosystem protection, including wildlife habitat, endangered species and rare and unique species
3. Amenities for human appreciation and use, including wildlands for future generations, current and future options for recreation, scenery, spiritual inspiration, scientific study, and a draw for tourism

# **Recreation is one of these significant amenity values**

Total visitation by agency, including single-day and multi-day use by region

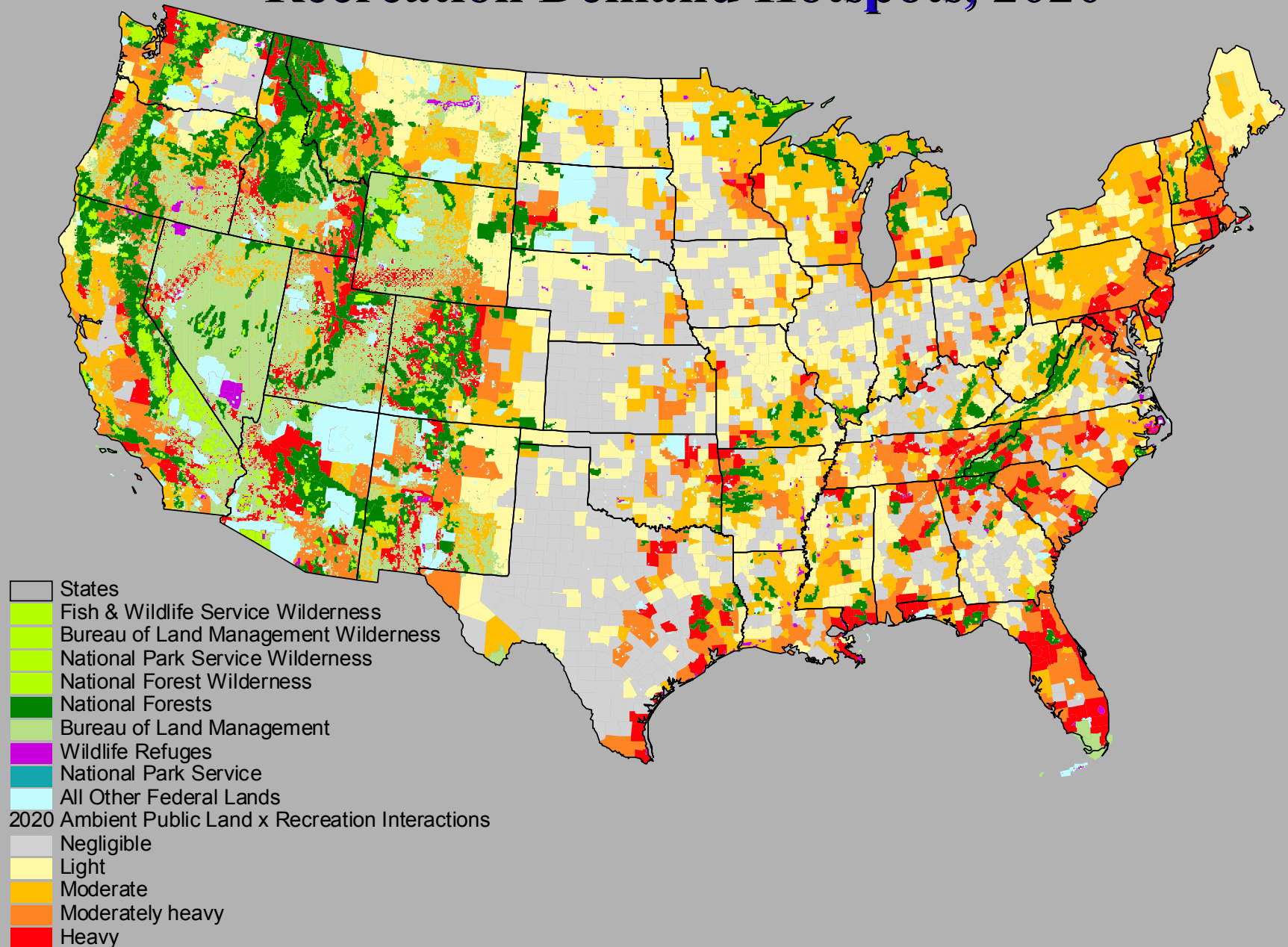
|  |                   |
|--|-------------------|
| <b>Total NWPS Site Visits</b>                          | <b>12,825,610</b> |
| <b>FS site visits</b>                                  | <b>10,517,000</b> |
| <b>NPS site visits</b>                                 | <b>1,923,841</b>  |
| <b>FWS site visits</b>                                 | <b>333,466</b>    |
| <b>BLM site visits</b>                                 | <b>51,302</b>     |
| <b>Total single-day site visits</b>                    | <b>8,458,490</b>  |
| <b>Total multi-day site visits</b>                     | <b>4,367,120</b>  |
| <b>Total FS, FWS, &amp; BLM site visits</b>            | <b>10,901,768</b> |
| <b>FS, FWS, &amp; BLM single-day site visits (73%)</b> | <b>7,958,291</b>  |
| <b>FS, FWS &amp; BLM multi-day site visits (27%)</b>   | <b>2,943,477</b>  |
| <b>Total NPS site visits</b>                           | <b>1,923,841</b>  |
| <b>NPS single-day use (26%)</b>                        | <b>500,199</b>    |
| <b>NPS multi-day use (74%)</b>                         | <b>1,423,643</b>  |

**Mean  
scores of  
responses  
to 16  
wilderness  
recreation  
experience  
preference  
domains  
from eight  
designated  
wilderness  
areas**

| Benefit                 | Grand Mean |
|-------------------------|------------|
| Enjoy nature            | 1.5        |
| Physical fitness        | 2.0        |
| Reduce tensions         | 2.2        |
| Escape                  | 2.2        |
| Outdoor learning        | 2.3        |
| Sharing values          | 2.8        |
| Independence            | 3.0        |
| Family kinship          | 3.0        |
| Spiritual               | 3.1        |
| Considerate people      | 3.3        |
| Achievement/stimulation | 3.4        |
| Physical rest           | 3.5        |
| Teach/lead others       | 3.8        |
| Risk taking             | 4.6        |
| Risk reduction          | 4.7        |
| Meet new people         | 5.1        |



# Public Lands and NWPS Lands Overlaid onto Projected Recreation Demand Hotspots, 2020



**Participation by enthusiasts accounts for most of the activity days (E.g., 6 of 34 activities, 2000-2001)**

**Current demand**

| <b>Activity</b>                         | <b>Percent of Population who are Enthusiasts</b> | <b>Percent of Total Participation Days by Enthusiasts</b> |
|---|--|---|
| Visiting a wilderness or primitive area | 10.3   | 88.9  |
| Day hiking                              | 10.4   | 88.5  |
| Kayaking                                | 1.2  | 84.2  |
| Warmwater fishing                       | 7.5  | 80.6  |
| Downhill skiing                         | 2.6  | 76.1  |
| Snowboarding                            | 1.5  | 74.0  |

# ABOUT THIS PRESENTATION

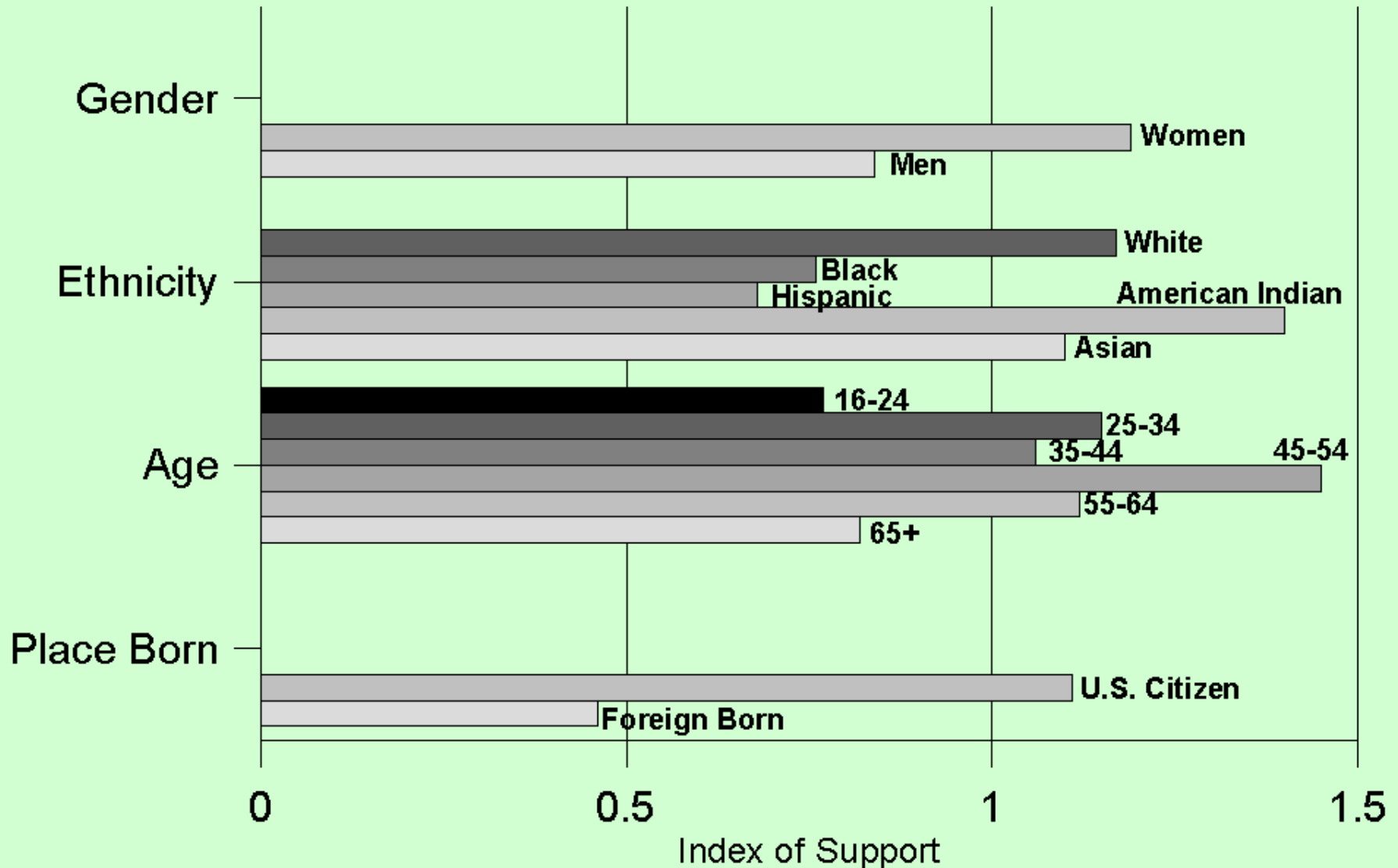
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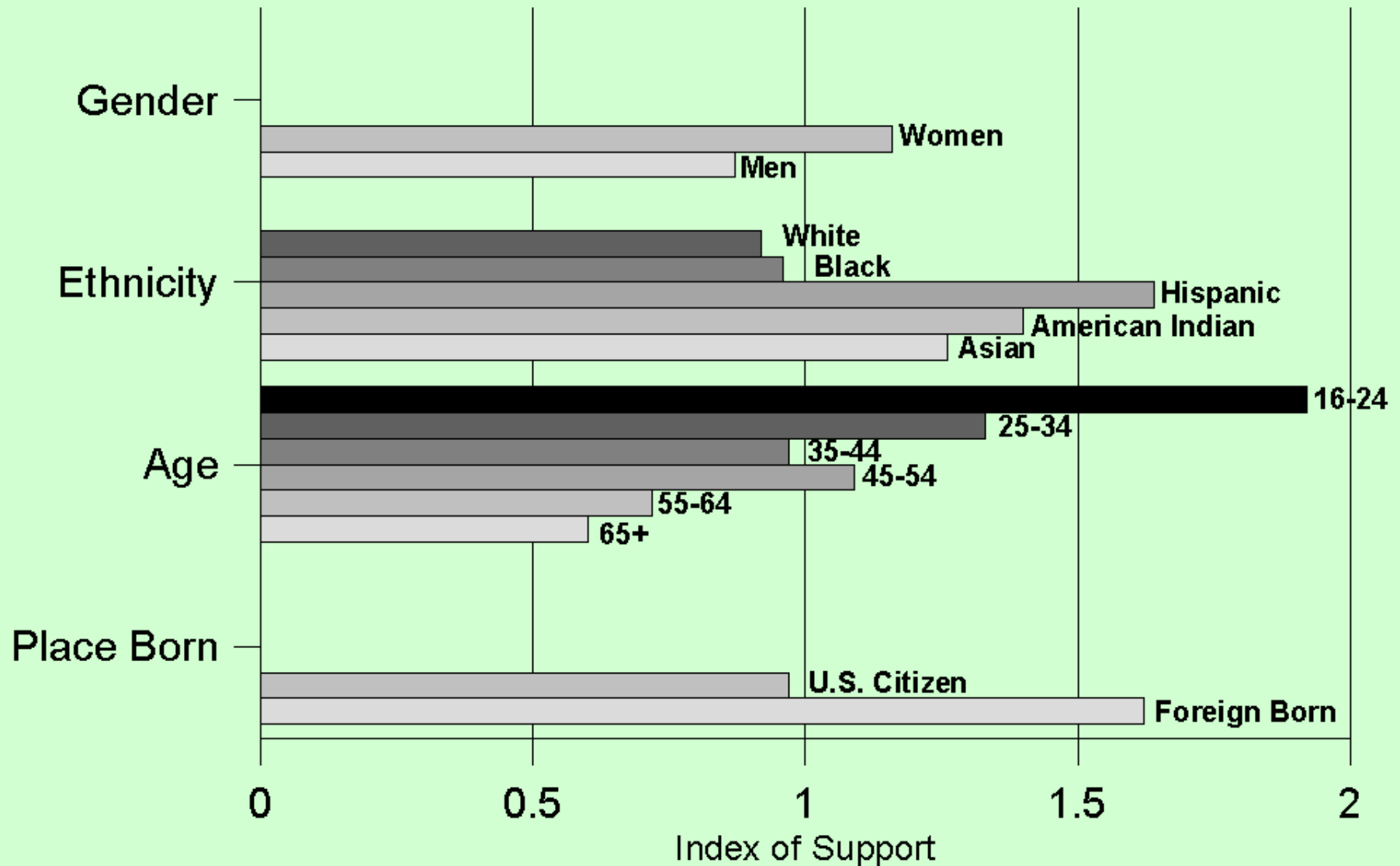
# ***The Most Important Benefits of Wilderness***

## ***Protecting Water Quality***



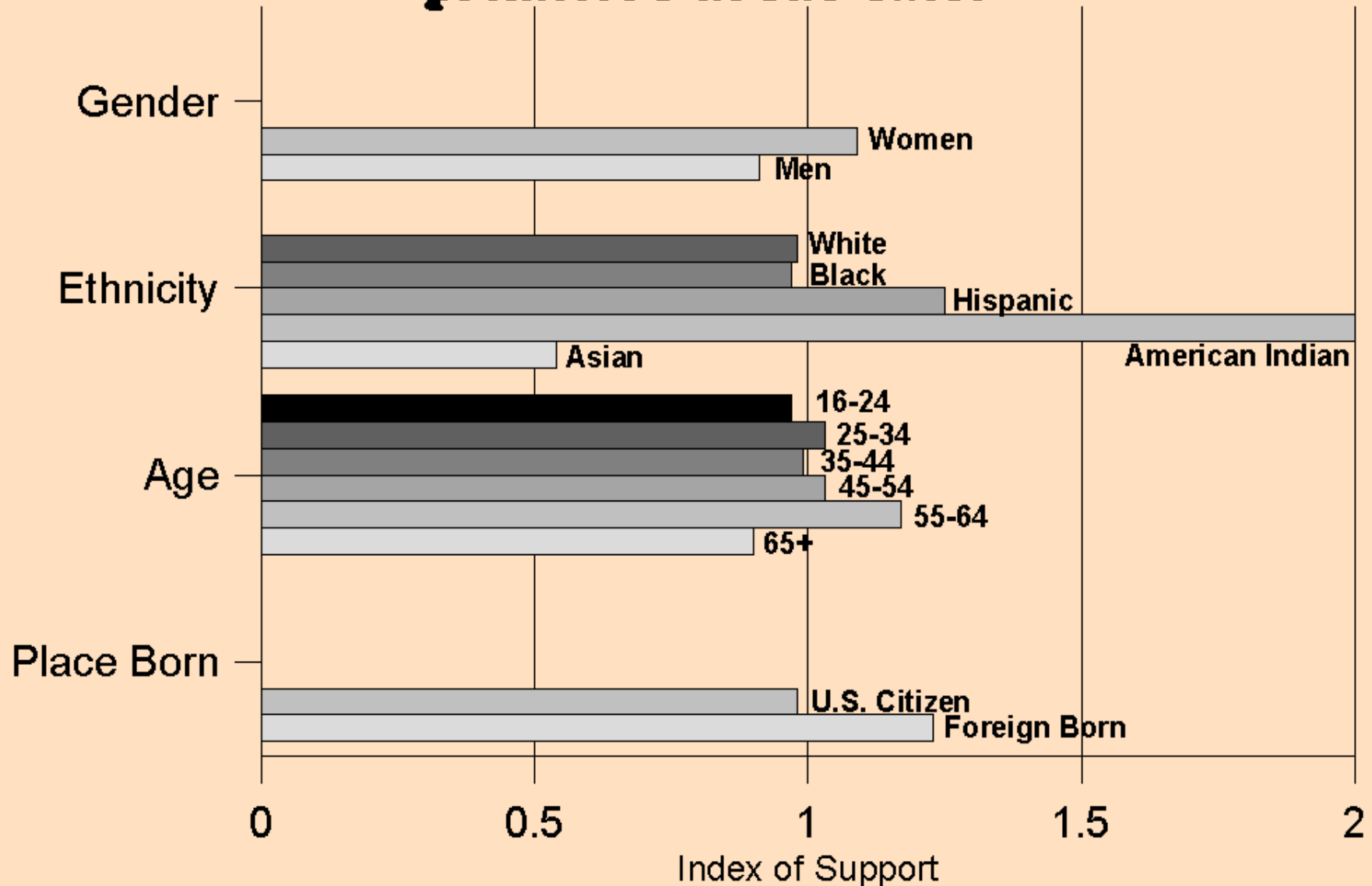
# ***The Most Important Benefits of Wilderness***

## ***Protecting wildlife habitat***



# ***The Most Important Benefits of Wilderness***

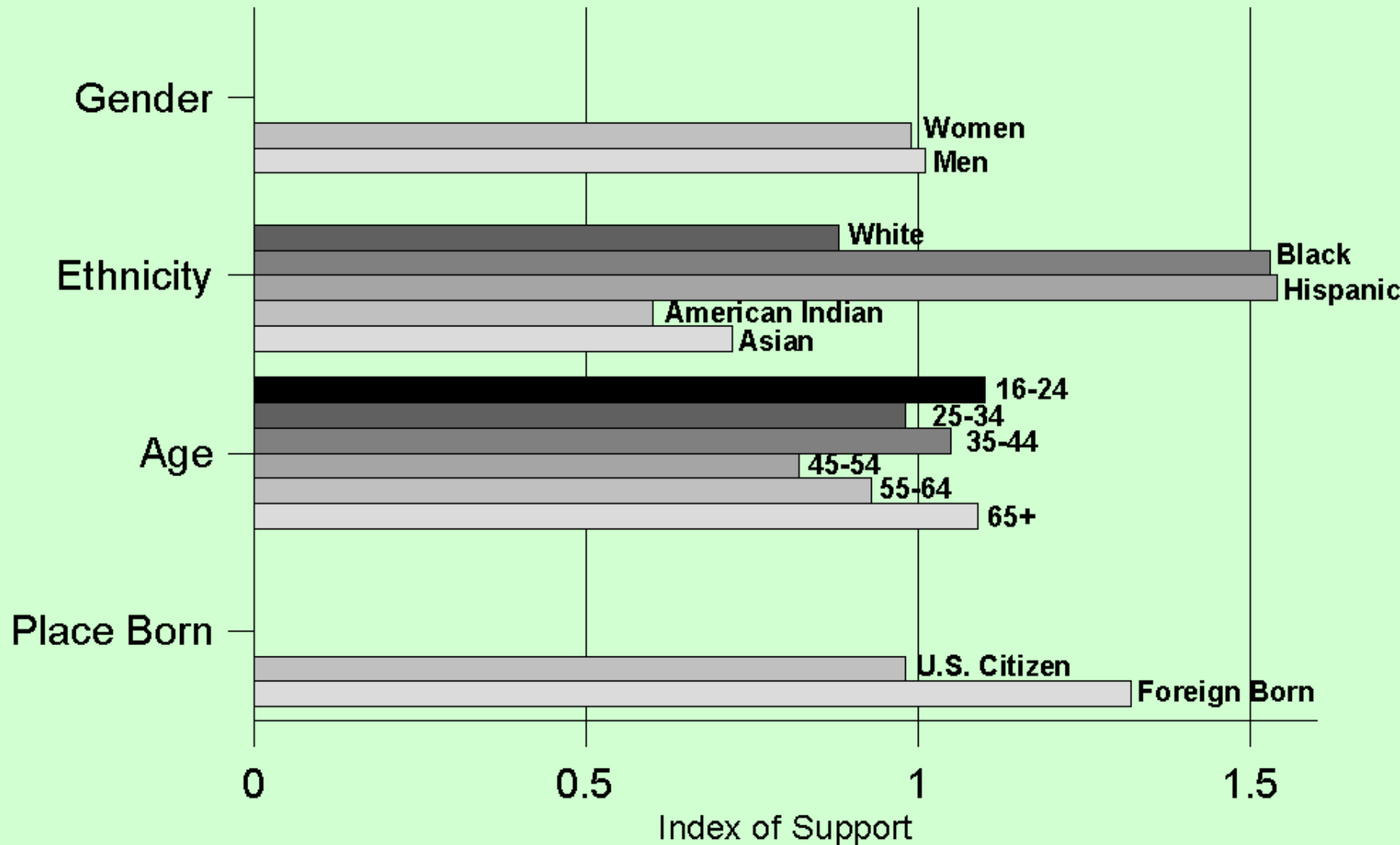
***Just knowing that wilderness and primitive areas exist***





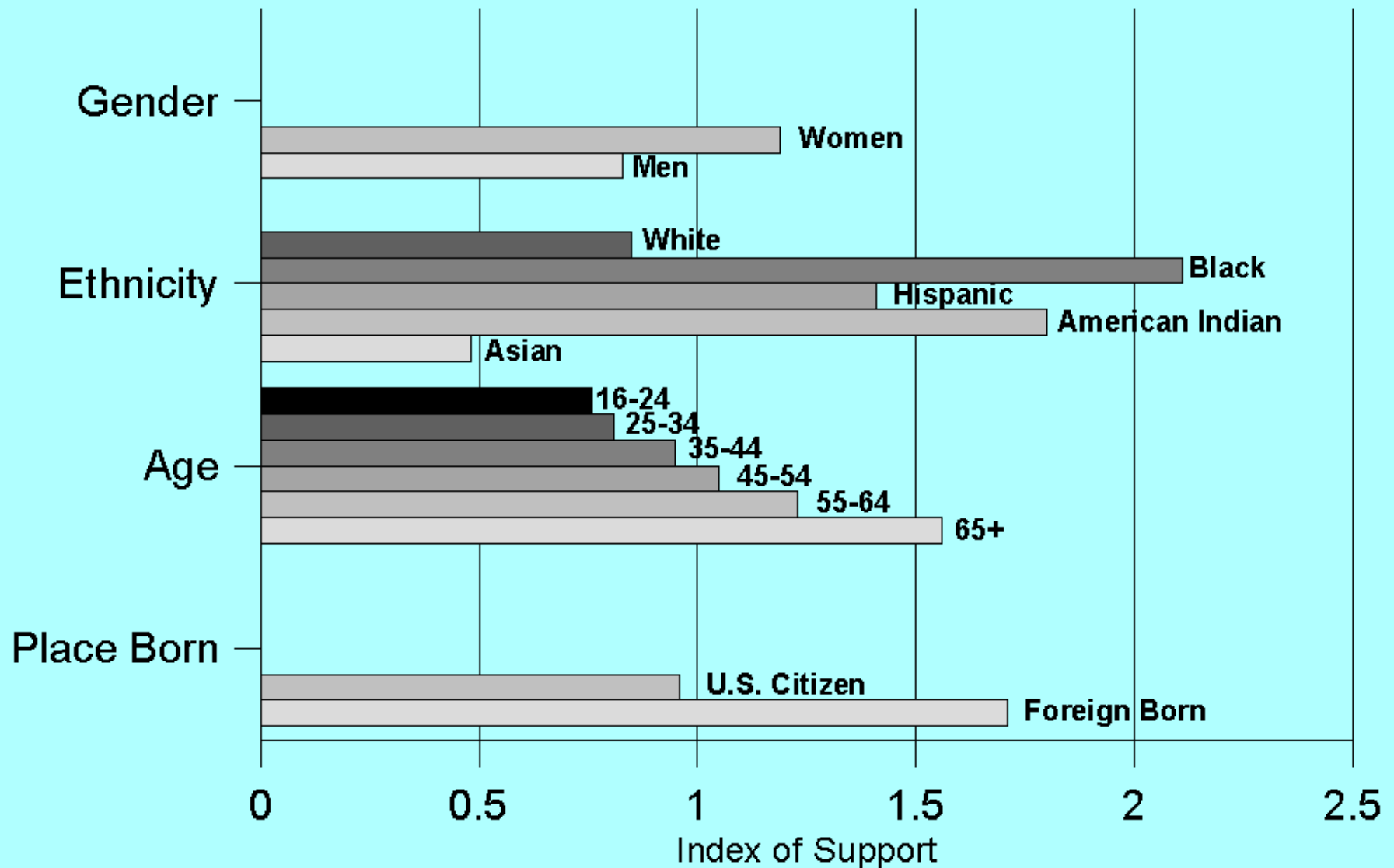
# ***The Most Important Benefits of Wilderness***

## ***Providing recreation opportunities***



# ***The Most Important Benefits of Wilderness***

## ***Providing spiritual inspiration***



# **ABOUT THIS PRESENTATION**

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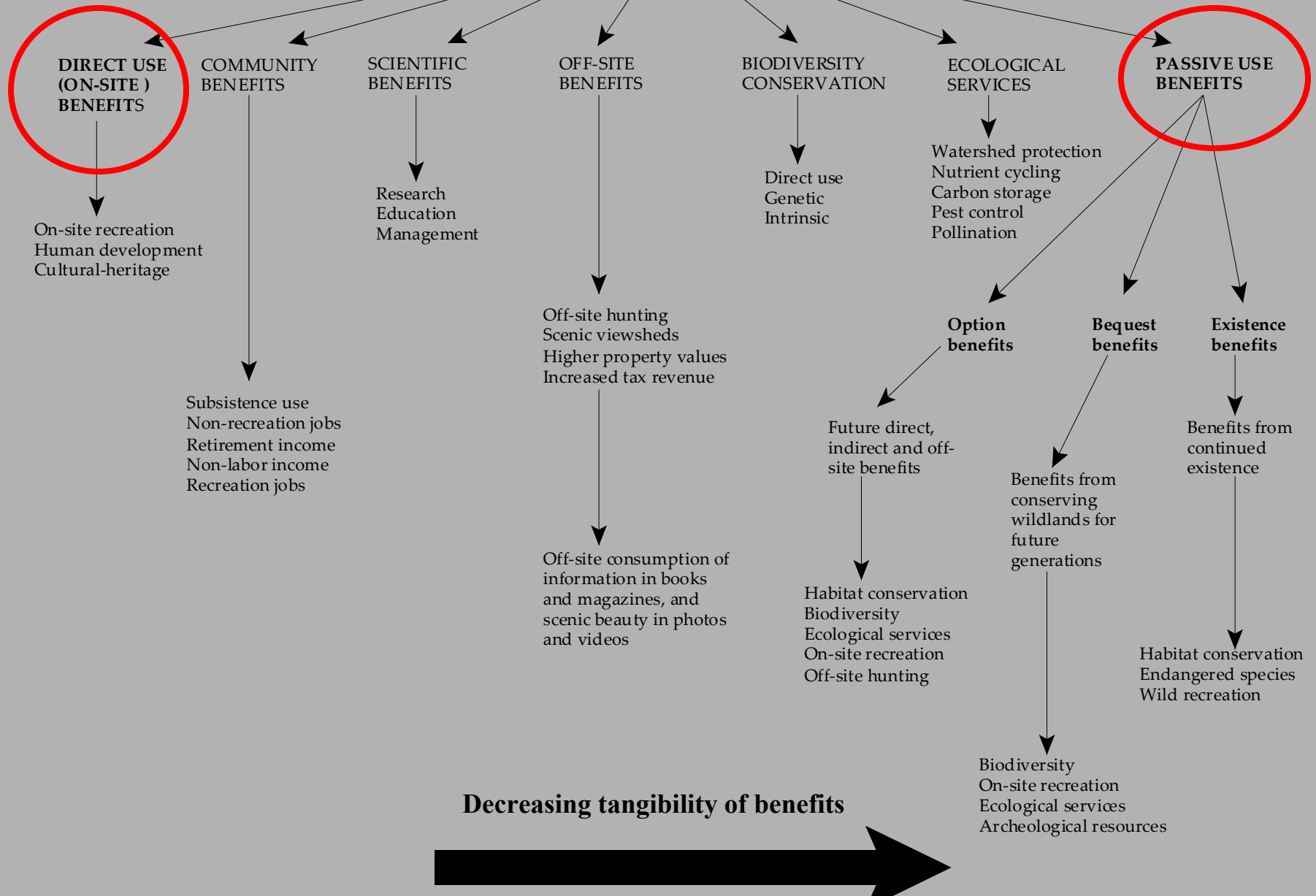
1. Some selected principles of good Wilderness management
2. The changing social context
3. A big picture description of the NWPS
4. A Framework of Wilderness values
5. Social Values and Demographic Differences
6. **Economic Values**
7. Ecological and Intrinsic Values



# An Organizing Framework for Wilderness Values

| Basic Functional Connections | Measurement Accounts or Categories   | Specific Types of Measures or Indicators                        |
|------------------------------|--|---|
| Wilderness Values            | Social   | Psychological<br>Sociological<br>Anthropological                |
|                              | Economic   | Active Use Value<br>Passive Use Value<br>Economic Impacts       |
|                              | Ecologic   | Human Life Support Value<br>Animal and Plant Life Support Value |
|                              | Ethical  | Instrumental Value<br>Intrinsic Value                           |
| Wilderness Services          | Animal and Plant Habitat; Carbon Sequestration; Subsistence Living; Cultural Preservation; Historic Preservation; Scientific Discovery; Educational Development; Personal Physical Health and Growth; Personal Emotional Health and Growth; Personal Spiritual Health and Growth; Community Health and Quality of Life |   |
| Wilderness Functions         | Preservation of Natural and Wild Places; Recreational and Experiential Setting; Ecosystem and Biodiversity Preserve  |   |
| Wilderness Attributes        | Geographic; Geologic; Hydrologic; Atmospheric; Biologic; Naturalness; Wildness; Constructed  |   |

# TOTAL ECONOMIC BENEFITS OF WILDERNESS



## Direct On-Site Use and Passive Use Economic Value

| Value Type              | Use                                   | Net Economic Value (NEV) | Annual Net Economic Value |
|-------------------------|---------------------------------------|--------------------------|---------------------------|
| On-site: Single-day use | 8.4 million single-day trips per year | \$19.50 per trip         | \$165 million             |
| On-site: Multi-day use  | 4.4 million multi-day trips per year  | \$68.47                  | \$299 million             |
| Passive use Value       | 52.7 million households               | \$63.31 per household    | \$3.34 billion            |
|                         |                                       | Total Annual NEV         | \$3.8 billion             |
|                         |                                       | Per acre                 | \$35.89                   |



## **Summation**

- **Passive use net economic value per annum is estimated to be \$3.45 billion.**
- **On-site recreation use value is estimated to be around \$464 million per year**
- **Passive use value is estimated to be over 7 times (7.4 actually) greater than on-site recreation use value.**

# Economic Impacts

## Does Wilderness Designation Harm Rural Economies?

- **There are no discernible general patterns of negative impacts from Wilderness in rural counties**
- Economic growth is greater for non-metropolitan counties that contain or are near publicly-owned natural areas, including Wilderness
- Wilderness contributes to the quality of life of local residents that is actively sought in migration decisions
- The role of Wilderness in local economic development is similar to the old BASF commercial: “We don’t build it, we just make it better”
- Economic growth is increasingly being generated by multiplier effects from consumer spending in the services and trades sectors
- But, the total volume of visitation to Wilderness, and the associated spending by nonlocal visitors is not sufficient to sustain any significant tourism industry by itself
- **“Wilderness protection does not impoverish communities by locking up resources. Rather, it protects the economic future of those communities by preserving high quality natural environments that are increasing in demand across the nation.” (Tom Power 1996)**

# Economic Growth Effects of Wilderness in Non-Metropolitan Western Counties

| Counties Containing:                                 | Number of<br>Counties | Employment<br>Growth<br>1969-1997 (%) | Income Growth<br>1969-1997 (%) |
|--|-----------------------|---------------------------------------|--------------------------------|
| No federal lands                                     | 13                    | 63.5                                  | 755.9                          |
| Any federal lands                                    | 401                   | 142.7                                 | 992.5                          |
| Federal multiple use<br>lands                        | 172                   | 115.6                                 | 864.5                          |
| Federal multiple use<br>lands and protected<br>lands | 230                   | 163.3                                 | 1089.7                         |
| More protected lands<br>than multiple use lands      | 13                    | 197.3                                 | 1109.2                         |



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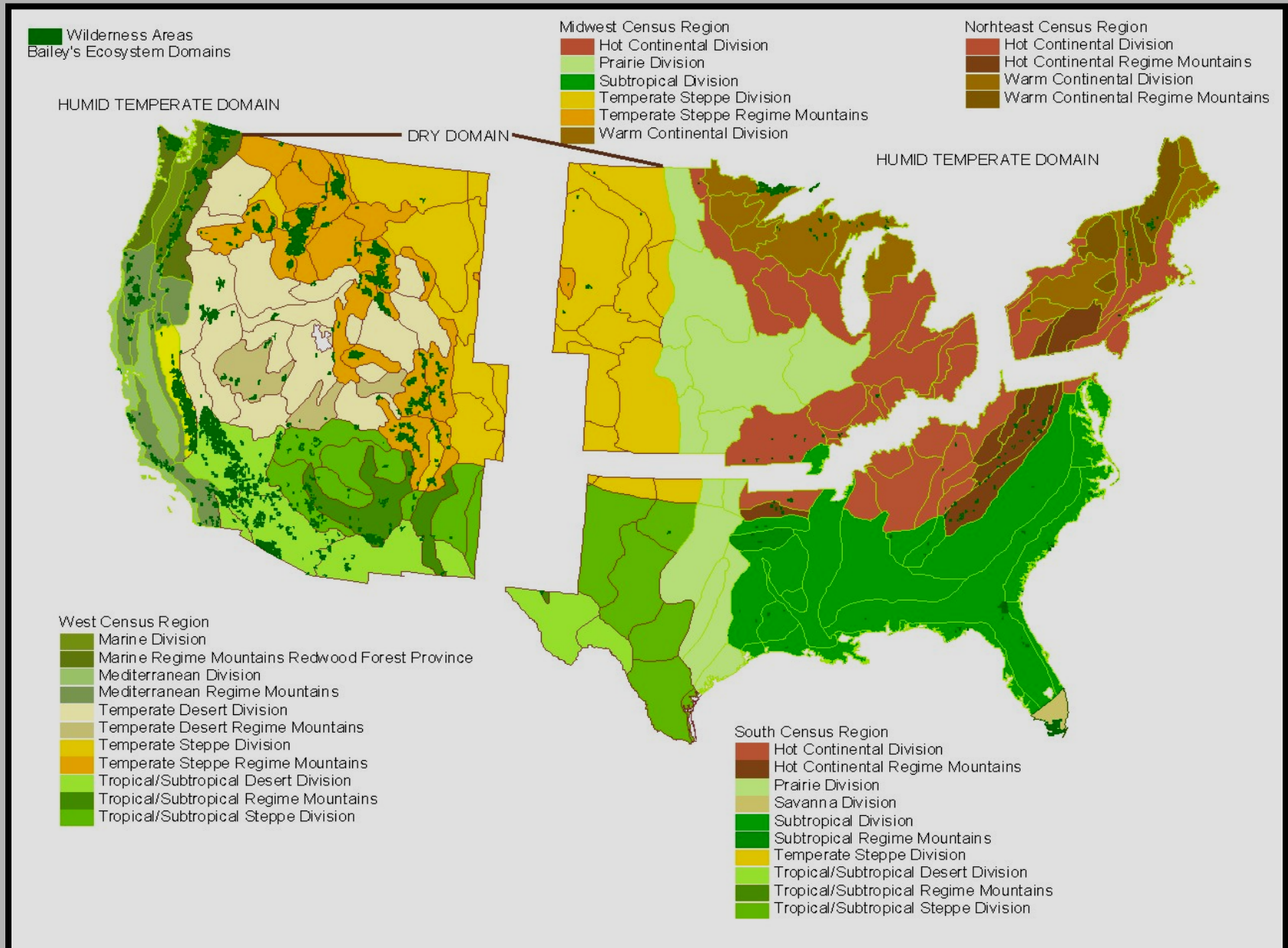
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# Additional Values (No less Important)

- Ecological (The contribution of Wilderness to sustaining natural systems that support life, human and non-human)
- Intrinsic (From a philosopher's perspective, the intrinsic value of something is really its claim *to be*. From a human viewpoint, it is respect for nature.)



# Ecological Value, Ecosystem Representation (wilderness areas by type of natural ecosystem at Bailey's Domain and Division levels)





# Ecological Value, Water Supply

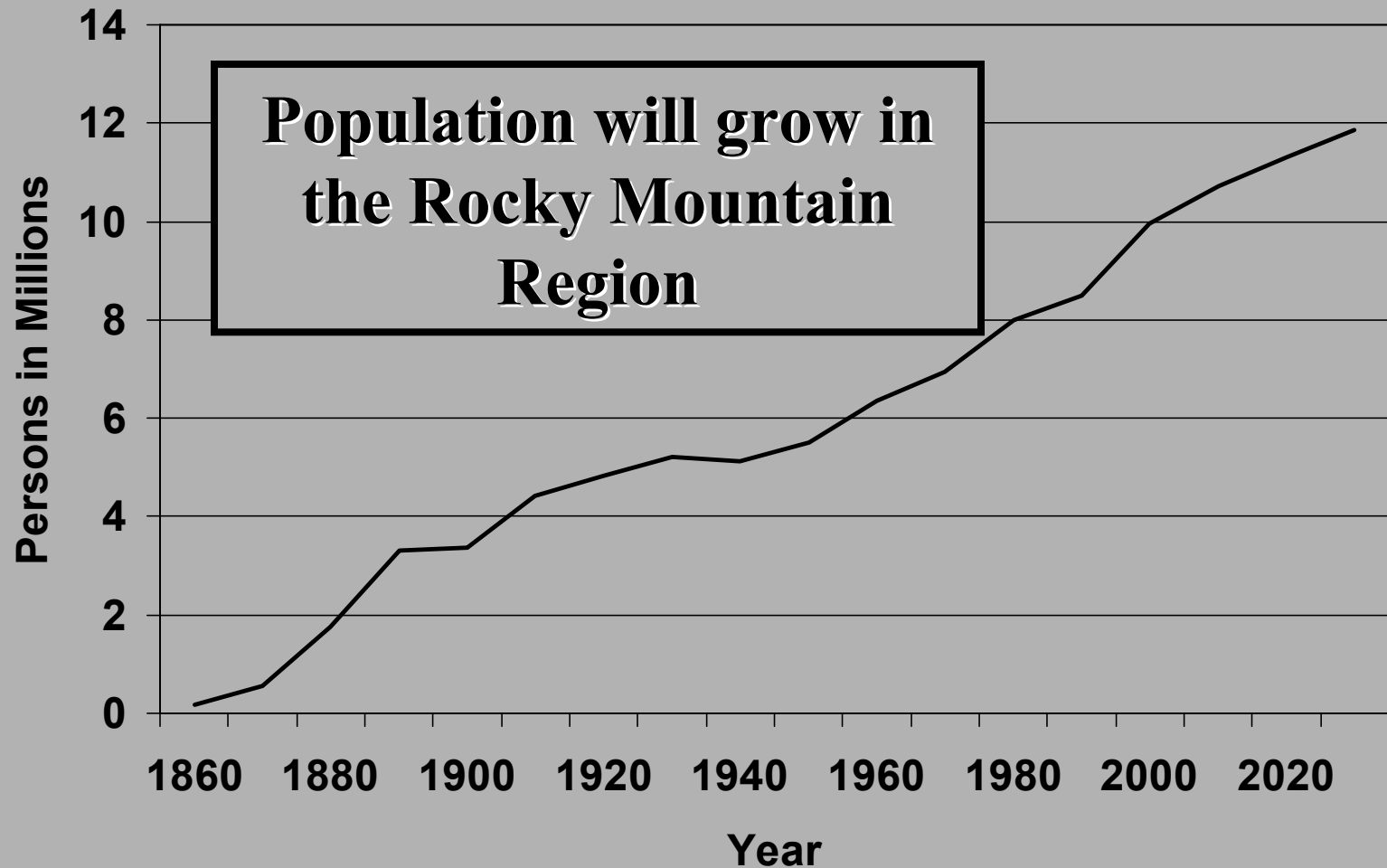
| <b>Precipitation</b> | <b>Areas</b> | <b>Acres</b> | <b>Percent<br/>of Total</b> |
|----------------------|--------------|--------------|-----------------------------|
| 0-15 in.             | 146          | 12,920,179   | 27.55                       |
| 16-30 in.            | 138          | 9,517,039    | 20.29                       |
| 31-40 in.            | 101          | 8,777,388    | 18.72                       |
| 41-60 in.            | 185          | 9,817,244    | 20.93                       |
| 61-90 in.            | 63           | 3,533,052    | 7.53                        |
| 100+ in.             | 20           | 2,331,883    | 4.97                        |

**Where is the future taking us?**

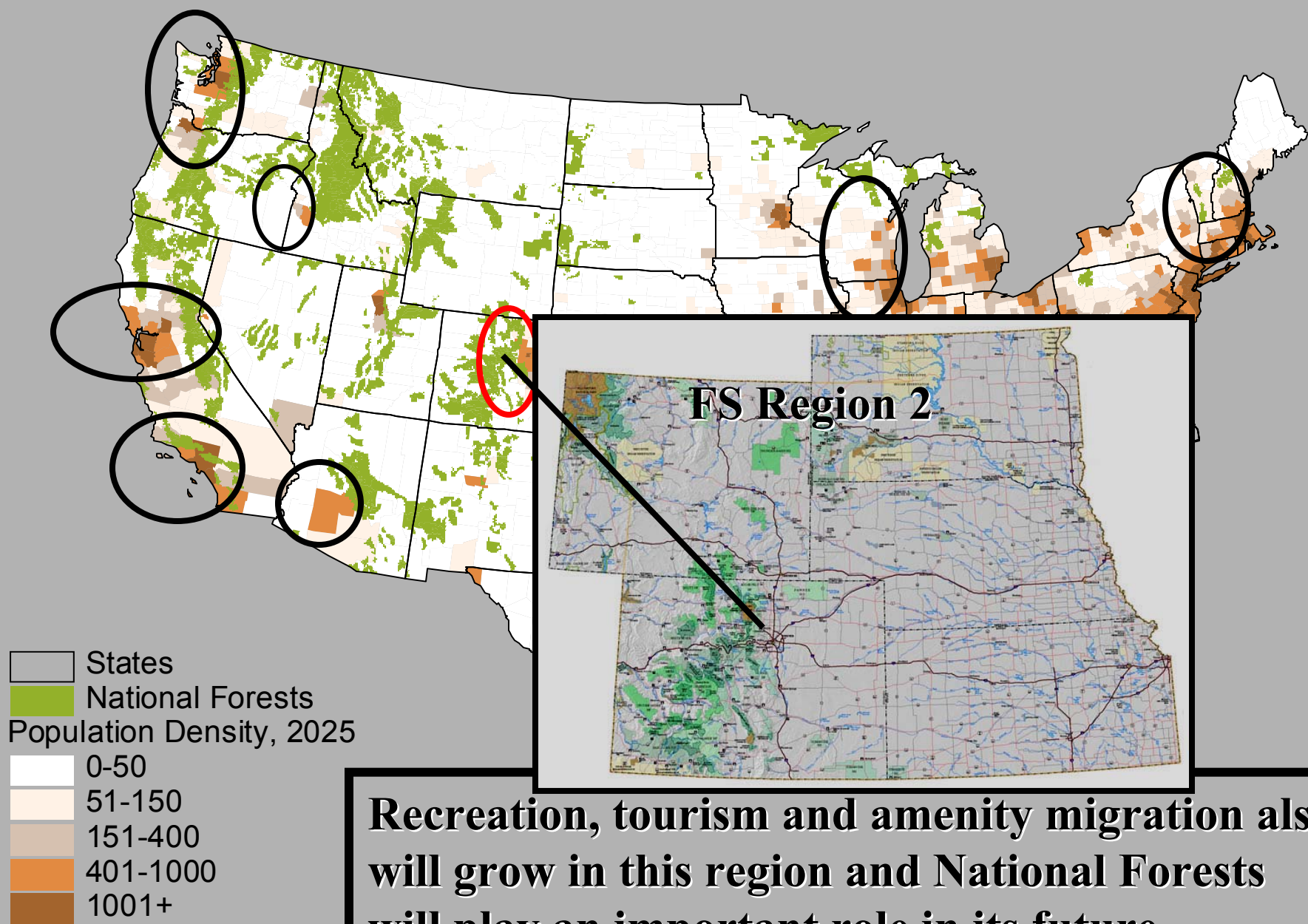


# Historical and Projected Population in **Region 2**

(Colorado, Kansas, Nebraska, South Dakota, & Wyoming)



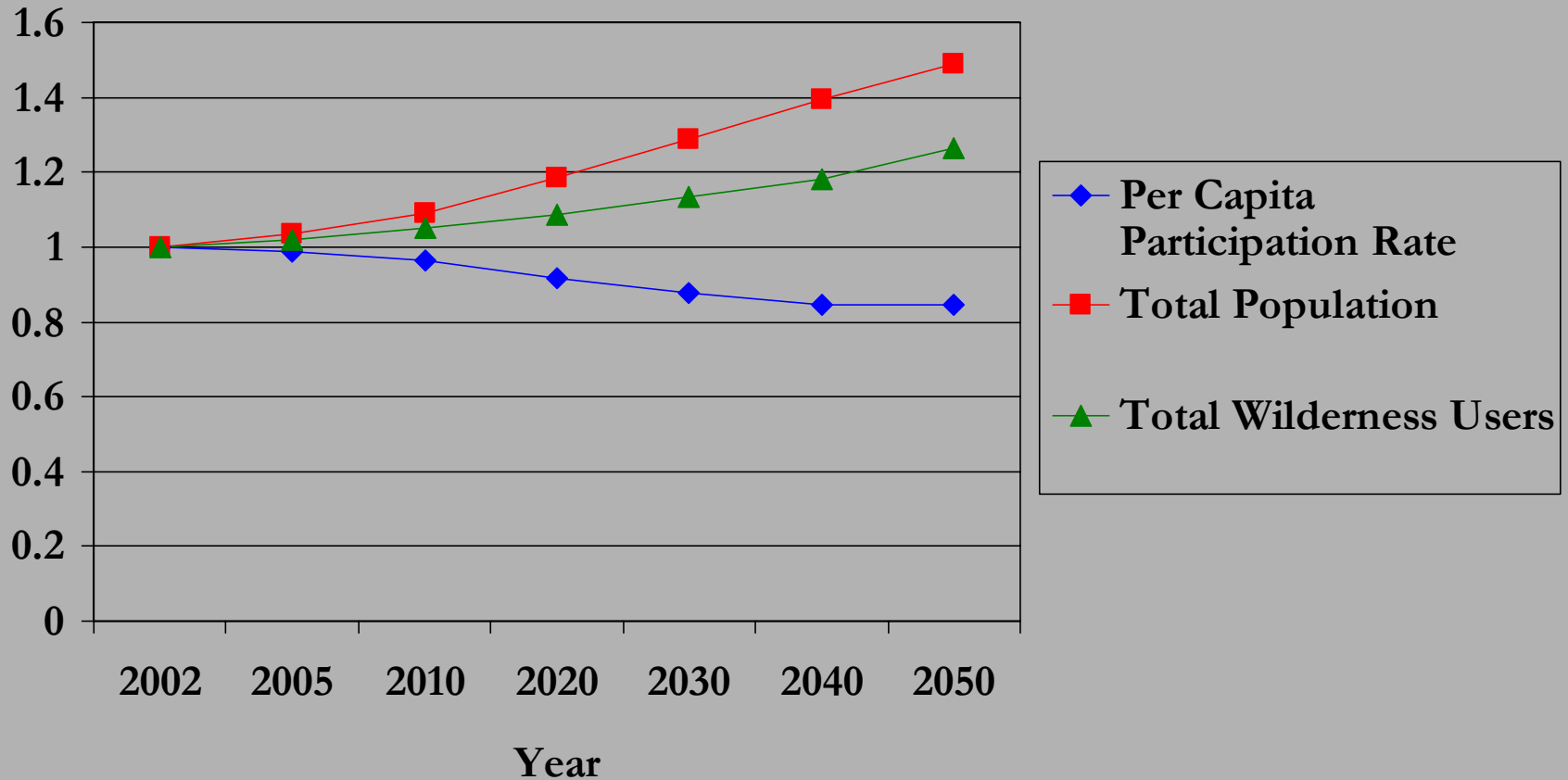




**Recreation, tourism and amenity migration also will grow in this region and National Forests will play an important role in its future**

# Wilderness Visitation Index

## 2002 - 2050



**Recreation use in Wilderness will grow**

# Percent in Nation saying important or very important

Expanding access for  
motorized vehicles (20%)

Developing trail systems for  
motorized uses (29%)

Developing trail systems for non-  
motorized rec. (57%)

Conserving/protecting sources  
water (91%)

Designating more  
wilderness areas (58%)

Developing paved roads  
for cars (19%)

Preserving resources  
thr

Protecting ecosystems/  
habitats (86%)

**As growth occurs, what do Forest  
Service and other Wilderness  
managers need to keep in mind?**

Expanding commercial  
recreation (28%)

Informing public on potential  
environmental impacts (81%)



# Most Favored Objectives for NFs in the future

(Percent in Nation saying important or very important)

**Expanding non-motorized access, protected lands, protected ecosystems and education are publicly favored**

Developing trail systems for non-motorized rec. (57%)

Conserving/protecting sources of water (91%)

Designating more wilderness areas (58%)

Developing paved roads for cars (19%)

Preserving resources through policies (75%)

Preserving wilderness experience (74%)

Protecting ecosystems/habitats (86%)

Increasing acres in public land (53%)

Expanding commercial recreation (28%)

Informing public on potential environmental impacts (81%)

## **Economic Values are Large**

- **Passive use net economic value per annum is estimated to be \$3.45 billion.**
- **On-site recreation use value is estimated to be around \$464 million per year**
- **Passive use value is estimated to be over 7 times (7.4 actually) greater than on-site recreation use value.**

# TOP 5 VALUES

For  
Wilderness

- 
- Protecting air quality
  - Protecting water quality
  - Protecting wildlife habitat
  - Protecting T&E species
  - Legacy for future generations
- (By Majority Vote)



# SOME POINTS TO PONDER



- Wilderness is a highly valued resource. It is owned by the citizens of the United States and held by the federal government in a trust of stewardship
- Stewardship includes being informed of the positions and values of the “Stockholders” of this rich national resource
- Most of the stockholders will never have an opportunity to visit Wilderness, but the largest most pervasive values they hold are held in absentia
- Across the spectrum of values (social, economic, ecologic, and intrinsic) Wilderness and public lands are esteemed, across the demographic of America

# **The Multiple Values of Wilderness**

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**Venture Publishing**  
**About our National  
Wilderness System**



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**H. Ken Cordell  
John C. Bergstrom  
J. M. Bowker**

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# The Multiple Values of Wilderness

Ken Cordell, Mike Bowker, John Bergstrom and Gary Green,  
Forest Service Research and the University of Georgia

[www.srs.fs.fed.us/trends](http://www.srs.fs.fed.us/trends)



**Forest Service Research and Development**